Volume 133 January-June, 1968

NATIONAL GEOGRAPHIC

INDEX

January-June, 1968

VOLUME 133

PUBLISHED BY THE
NATIONAL GEOGRAPHIC SOCIETY
WASHINGTON, D. C.

UMI

NATIONAL GEOGRAPHIC SOCIETY

WASHINGTON, D. C.

Organized "for the increase and diffusion of geographic knowledge"

GILBERT HOVEY GROSVENOR
President, 1920-1954; Editor, 1899-1954
Chairman of the Board, 1954-1966

THE NATIONAL GEOGRAPHIC SOCIETY is chartered in Washington, D. C., in accordance with the laws of the United States, as a nonprofit scientific and educational organization for increasing and diffusing geographic knowledge and promoting research and exploration. Since 1890 the Society has supported 436 explorations and research projects, adding immeasurably to man's knowledge of earth, sea, and sky. It diffuses this knowledge through its monthly journal, NATIONAL GEOGRAPHIC; more than 26 million maps distributed each year; its books, globes, atlases, and filmstrips; 30 School Bulletins a year in color; information services to press, radio, and television; technical monographs; exhibits from around the world in Explorers Hall; and a nationwide series of programs on television.

Articles and photographs of travel, natural history, and expeditions to far places are desired. For material used, generous remuneration is made.

MELVIN M. PAYNE, President
FREDERICK G. VOSBURGH, Vice President and Editor
LEONARD CARMICHAEL, Vice President for Research and Exploration
ROBERT E. DOYLE, Vice President and Secretary
THOMAS M. BEERS, Vice President and Associate Secretary
GILBERT M. GROSVENOR, Vice President and Associate Editor
HILLEARY F. HOSKINSON, Treasurer and Assistant Secretary
OWEN R. ANDERSON, HERMAN J. A. C. ARENS, WILLIAM T. BELL,
HERBERT T. HENDERSON, W. EDWARD ROSCHER,
C. VERNON SANDERS, Associate Secretaries

BOARD OF TRUSTEES

MELVILLE BELL GROSVENOR
Chairman of the Board and Editor-in-Chief

THOMAS W. McKNEW, Advisory Chairman of the Board

LEONARD CARMICHAEL, Former Secretary, Smithsonian Institution
LEO OTIS COLBERT, Rear Admiral, U. S. Coast and Geodetic Survey (Ret.)
LLOYD H. ELLIOTT, President, George Washington University
CRAWFORD H. GREENEWALT, Chairman, Finance Committee, E. I. du Pont de Nemours & Company
GILBERT M. GROSVENOR, Associate Editor, National Geographic
ARTHUR B. HANSON, General Counsel, National Geographic Society
CARYL P. HASKINS, President, Carnegie Institution of Washington
EMORY S. LAND, Vice Admiral, U. S. Navy (Ret.), Former President, Air Transport Association
CURTIS E. LEMAY, Former Chief of Staff, U. S. Air Force
H. RANDOLPH MADDOX, Vice President, American Telephone & Telegraph Company (Ret.)
WM. McCHESNEY MARTIN, JR., Chairman, Board of Governors, Federal Reserve System
BENJAMIN M. McKELWAY, Editorial Chairman, Washington *Star*
MELVIN M. PAYNE, President, National Geographic Society
LAURANCE S. ROCKEFELLER, President, Rockefeller Brothers Fund
JUAN T. TRIPPE, Chairman of the Board, Pan American World Airways
FREDERICK G. VOSBURGH, Editor, National Geographic
JAMES H. WAKELIN, JR., Former Assistant Secretary of the Navy
EARL WARREN, Chief Justice of the United States
JAMES E. WEBB, Administrator, National Aeronautics and Space Administration
ALEXANDER WETMORE, Research Associate, Smithsonian Institution
LLOYD B. WILSON (Emeritus), Honorary Board Chairman, Chesapeake & Potomac Telephone Company
CONRAD L. WIRTH, Former Director, National Park Service
LOUIS B. WRIGHT, Director, Folger Shakespeare Library

COMMITTEE FOR RESEARCH AND EXPLORATION

LEONARD CARMICHAEL, Chairman
ALEXANDER WETMORE and MELVIN M. PAYNE, Vice Chairmen

LEO OTIS COLBERT, CARYL P. HASKINS, A. REMINGTON KELLOGG, Research Associate, Smithsonian Institution, EMORY S. LAND, T. DALE STEWART, Senior Scientist, Office of Anthropology, Smithsonian Institution, MATTHEW W. STIRLING, Research Associate, Smithsonian Institution, JAMES H. WAKELIN, JR., CONRAD L. WIRTH, PAUL A. ZAHL, and the senior officers of the Society; BARRY C. BISHOP, Secretary on leave; EDWIN W. SNIDER, Secretary

Assistant Secretaries: CHARLES P. BIXEL, FRANK S. DELK, JOSEPH B. HOGAN, RAYMOND T. McELLIGOTT, JR.
Assistant Treasurer: WILLIAM H. McCAULEY

Leonard J. Grant, Editorial Assistant to the President; Edwin W. Snider, Richard E. Pearson, Administrative Assistants to the President; Judith N. Dixon, Administrative Assistant to the Chairman and Editor-in-Chief; Lenore W. Kessler, Secretary to the Advisory Chairman of the Board

SECRETARY'S STAFF: *Administrative:* Earl Corliss, Jr., Ward S. Phelps. *Accounting:* Jay H. Givans, George F. Fogle, Alfred J. Hayre, William G. McGhee, Martha Allen Baggett. *Statistics:* Everett C. Brown, Thomas M. Kent. *Retirement:* Mary L. Whitmore (Assistant Supervisor). *Payroll:* Dorothy L. Dameron (Assistant Supervisor). *Procurement:* J. P. M. Johnston, Robert G. Corey, Robert C. Ellis, Jr., Sheila H. Immel, Margaret A. Shearer. *Membership Research:* Charles T. Kneeland. *Membership Fulfillment:* Roy J. Klockenbrink. *Member Relations:* Paul F. Moize. *Computer Center:* John Goedel. *Secretary's Files:* Mozelle L. Downs. *Promotion:* Stan Jennings, E. M. Pusey, Jr., Gordon Young, Robert J. Warfel. *Personnel:* James B. Mahon, Adrian L. Loftin, Jr., Nellie E. Sinclair. *Medical:* Thomas L. Hartman, M. D. *Translation:* Zbigniew Jan Lutyk

COPYRIGHT © 1968 NATIONAL GEOGRAPHIC SOCIETY, 17TH AND M STS. N.W., WASHINGTON, D. C. 20036. ALL RIGHTS RESERVED. REPRODUCTION OR USE OF THE WHOLE OR ANY PART OF THE CONTENTS WITHOUT WRITTEN PERMISSION IS PROHIBITED. PRINTED IN U.S.A. SECOND-CLASS POSTAGE PAID AT WASHINGTON, D. C., AND AT ADDITIONAL MAILING OFFICES. COVER DESIGN AND TITLE PROTECTED BY INTERNATIONAL TRADEMARK. $8.00 A YEAR, $1.00 A COPY.

NATIONAL GEOGRAPHIC MAGAZINE

MELVILLE BELL GROSVENOR
Editor-in-Chief and Board Chairman
MELVIN M. PAYNE
President of the Society

FREDERICK G. VOSBURGH, Editor
GILBERT M. GROSVENOR, FRANC SHOR, Associate Editors

Senior Assistant Editors: Allan C. Fisher, Jr., John Scofield

Assistant Editors: Andrew H. Brown, James Cerruti, Robert L. Conly, W. E. Garrett, Edward J. Linehan, Kenneth MacLeish (Foreign Staff), Carolyn Bennett Patterson, Howell Walker, Kenneth F. Weaver

Senior Editorial Staff: Lonnelle Aikman, Jules B. Billard, Rowe Findley, William Graves, Stuart E. Jones, Robert P. Jordan, Joseph Judge, Nathaniel T. Kenney, Howard La Fay, Samuel W. Matthews, Bart McDowell; Senior Natural Scientist: Paul A. Zahl

Foreign Editorial Staff: Luis Marden (Chief); Thomas J. Abercrombie, David S. Boyer, Helen and Frank Schreider, Volkmar Wentzel

Editorial Staff: Wayne Barrett, Thomas Y. Canby, Louis de la Haba, Alice J. Hall, Werner Janney, Jay Johnston, Elizabeth A. Moize, Ethel A. Starbird, Peter T. White

Editorial Layout: Howard E. Paine (Chief); Charles C. Uhl, John M. Lavery

Geographic Art: William N. Palmstrom (Chief); Gilbert H. Emerson (Asst. Chief). *Artists:* Lisa Biganzoli, William H. Bond, John W. Lothers, Robert C. Magis, Robert W. Nicholson, Ned M. Seidler. *Cartographic Artists:* Victor J. Kelley, Snejinka Stefanoff. *Research:* Walter Q. Crowe (Supervisor), George W. Beatty, John D. Garst, Jean B. McConville, Dorothy A. Nicholson, Eugene M. Scheel, John P. Wood. Isaac Ortiz (Production). Marie L. Barnes (Administrative Assistant)

Editorial Research: Margaret G. Bledsoe (Chief); Ann K. Wendt (Assistant Chief), Edith C. Berg, Elisabeth J. Chappell, Ledlie L. Dinsmore, Margery G. Dunn, Jan Holderness, Levenia Loder, Frances H. Parker, Patricia Rosenborg, Elizabeth C. Wagner

Geographic Research: George Crossette (Chief); Newton V. Blakeslee (Assistant Chief), Leon J. Canova, Margaret Ladd, Virginia A. LeVasseur, John A. Weeks

Phototypography: John McConnell (Chief)

Library: Virginia Carter Hills (Librarian); Margery K. Barkdull (Assistant Librarian), Melba Barnes, Vera Cassilly, Katharine P. O'Donnell, Louise A. Robinson, Esther Ann Manion (Librarian Emeritus)

Administration: Betty T. Sanborne, Administrative Assistant to the Editor; Harriet Carey, Virginia H. Finnegan, Winifred M. Myers, Shirley Neff (Editorial Assistants); Dorothy M. Corson (Indexes); Rosalie K. Millerd, Jeanne S. Duiker (Files); Evelyn Fox (Transportation)

ILLUSTRATIONS STAFF: ***Illustrations Editor:*** Herbert S. Wilburn, Jr. *Associate Illustrations Editor:* Thomas R. Smith. *Art Editor:* Andrew Poggenpohl. *Assistant Illustrations Editors:* Mary S. Griswold, O. Louis Mazzatenta, Charles Allmon (Incoming Photographs). *Layout and Production:* Arthur A. Terry. *Senior Picture Editors:* Charlene Murphy, Robert S. Patton. *Picture Editors:* Manuel L. Lopez, Jon Schneeberger. *Research:* Paula C. Simmons. *Librarian:* Alan J. Lessel. Barbara A. Shattuck (Assistant)

Artists: Walter A. Weber (Naturalist), Peter V. Bianchi

Engraving and Printing: Dee J. Andella (Chief); Joe M. Barlett, Frank S. Oliverio, William W. Smith, James R. Whitney

PHOTOGRAPHIC STAFF: ***Director of Photography:*** Robert E. Gilka. *Assistant Directors:* B. Anthony Stewart, Dean Conger. *Film Review:* Albert Moldvay (Chief); Guy W. Starling (Assistant Chief). *Pictorial Research:* Walter Meayers Edwards (Chief). *Photographers:* James P. Blair, Bruce Dale, John E. Fletcher, Otis Imboden, Emory Kristof, Bates Littlehales, George F. Mobley, Robert S. Oakes, Winfield Parks, Joseph J. Scherschel, Robert F. Sisson, James L. Stanfield

Photographic Laboratory: Edwin L. Wisherd (Chief); Milton A. Ford, Donald McBain, Claude E. Petrone, Carl M. Shrader

RELATED EDUCATIONAL SERVICES OF THE SOCIETY

Cartography—Maps, atlases, and globes: Chief Cartographer: Wellman Chamberlin. *Associate Chief Cartographer:* Athos D. Grazzini. *Assistant Chief:* William T. Peele. *Base Compilation:* Charles L. Stern (Supervisor), James W. Killion. *Name Compilation:* Donald A. Jaeger (Supervisor), Manuela G. Kogutowicz, George E. Stuart. *Map Drawings:* Douglas A. Strobel (Supervisor), Robert W. Northrop, Thomas A. Wall. *Map Editing:* Ted Dachtera (Supervisor), Russel G. Fritz, Richard K. Rogers, Thomas A. Walsh. *Projections:* David W. Cook. *Layout and Design:* John F. Dorr, Harry C. Siddeley. *Revisions:* Richard J. Darley. *Administrative Assistant:* Catherine M. Hart

Books: Merle Severy (Chief); Edwards Park (Associate Chief); Seymour L. Fishbein (Assistant Chief), Thomas B. Allen, Ross Bennett, Charles O. Hyman, James P. Kelly, Anne Dirkes Kobor, John J. Putman, Berry L. Reece, Jr., David F. Robinson

Special Publications: Robert L. Breeden (Chief); Donald J. Crump (Assistant Chief), Josephine B. Bolt, Bruce Brander, David R. Bridge, Johanna G. Farren, Ronald M. Fisher, Mary Ann Harrell, Bryan Hodgson, Geraldine Linder, Michael E. Long, Philip B. Silcott, Joseph A. Taney

School Service: Ralph Gray (Chief); Arthur P. Miller, Jr. (Assistant Chief), Richard M. Crum, Jeanne A. Davis, Phyllis Greene, Charles H. Sloan, Janis Knudsen Wheat

News Service: Windsor P. Booth (Chief); Paul Sampson (Assistant Chief), Edward Cornish, Donald J. Frederick, Sabin Robbins; Isabel Clarke (Assistant)

Television: Robert C. Doyle (Chief); Dennis B. Kane (Assistant Chief), David Cooper; Patricia F. Northrop (Administrative Assistant)

Lectures: Joanne M. Hess (Chief); Robert G. Fleegal, Mary W. McKinney, Gerald L. Wiley

Explorers Hall: T. Keilor Bentley (Curator-Director)

EUROPEAN OFFICES: W. Edward Roscher (Associate Secretary and Director), 11 Stanhope Gate, Mayfair, London, W. 1, England; Jacques Ostier, 6 rue des Petits-Pères, 75-Paris 2e, France

ADVERTISING: *Director:* Harley L. McDevitt, 630 Fifth Ave., New York, N.Y. 10020. *Managers—National:* William A. Boeger, Jr.; *Eastern:* Joseph T. Feeney, New York. *Midwestern:* William Turgeon, Chicago. *Los Angeles:* Jack V. Sheehan. *San Francisco:* Thomas Martz. *Automotive:* John F. Grant, New York. *Travel:* Robert W. Horan, New York

Contents

Page

JANUARY 1968

IN THE FOOTSTEPS OF ALEXANDER THE GREAT 1
By Helen and Frank Schreider, with photographs by the authors

OUR VIRGIN ISLANDS, 50 YEARS UNDER THE FLAG 67
By Carleton Mitchell, with photographs by James L. Stanfield

BIG BEND: JEWEL IN THE TEXAS DESERT 104
By Nathaniel T. Kenney, with photographs by James L. Stanfield

THE WORLD IN GEOGRAPHIC FILMSTRIPS 134
By Melvin M. Payne

A TAXI FOR THE DEEP FRONTIER 139
By Kenneth MacLeish, with photographs by Bates Littlehales
Project Man-in-Sea Goes Mobile

FEBRUARY 1968

CZECHOSLOVAKIA: THE DREAM AND THE REALITY 151
By Edward J. Linehan, with photographs by James P. Blair

OUR GROWING INTERSTATE HIGHWAY SYSTEM 195
By Robert Paul Jordan

NEW MAP CHARTS AN EXPANDING NATION (United States) 220
Text with Map Supplement

SHARKS: WOLVES OF THE SEA 222
By Nathaniel T. Kenney

ECUADOR: LOW AND LOFTY LAND ASTRIDE THE EQUATOR 259
By Loren McIntyre, with photographs by the author

AMAZON (Television Announcement) 295A

MARCH 1968

CORONATIONS A WORLD APART 299
By the Editor

IRAN'S SHAH CROWNS HIMSELF AND HIS EMPRESS 301
By Franc Shor, with photographs by James L. Stanfield and Winfield Parks

SOUTH SEAS' TONGA HAILS A KING 322
By Melville Bell Grosvenor, with photographs by Edwin Stuart Grosvenor

THE FRIENDLY ISLES OF TONGA 345
By Luis Marden, with photographs by the author

MOBILE, ALABAMA'S CITY IN MOTION 368
By William Graves, with photographs by Joseph J. Scherschel and Robert W. Madden

THE HIGHLANDS, STRONGHOLD OF SCOTTISH GAELDOM 398
By Kenneth MacLeish, with photographs by Winfield Parks

SCORPIONS: LIVING FOSSILS OF THE SANDS 436
By Paul A. Zahl, with photographs by the author

Page

APRIL 1968

VIET NAM'S MONTAGNARDS ... 443
By Howard Sochurek, with photographs by the author

NATURE'S YEAR IN PLEASANT VALLEY ... 488
By Paul A. Zahl, with photographs by the author

ROBERT V. FLEMING, 1890-1967 ... 526
By Melville Bell Grosvenor

THE NETHERLANDS: NATION AT WAR WITH THE SEA ... 530
By Alan Villiers, with photographs by Adam Woolfitt

DORY ON THE BANKS: A DAY IN THE LIFE OF A PORTUGUESE FISHERMAN ... 573
By James H. Pickerell (*Black Star*), with photographs by the author

THE LONELY DORYMEN (Television Announcement) ... 579A

NATIONAL GEOGRAPHIC SOCIETY HONORS AIR PIONEER JUAN TRIPPE ... 584

MAY 1968

FINLAND: PLUCKY NEIGHBOR OF SOVIET RUSSIA ... 587
By William Graves, with photographs by George F. Mobley

TOOL-USING BIRD: THE EGYPTIAN VULTURE ... 631
By Baroness Jane van Lawick-Goodall, with photographs by Baron Hugo van Lawick

THE SPECTACULAR NORTH CASCADES ... 642
By Nathaniel T. Kenney, with photographs by James P. Blair
New National Park Proposed

NEVADA'S MOUNTAIN OF INVISIBLE GOLD ... 668
By Samuel W. Matthews, with photographs by David F. Cupp

ÎLE DE LA CITÉ, BIRTHPLACE OF PARIS ... 680
By Kenneth MacLeish, with photographs by Bruce Dale

THE FLOWER SEED GROWERS: GARDENING'S COLOR MERCHANTS ... 720
By Robert de Roos, with photographs by Jack Fields

INDEX TO FIRST 59 YEARS OF *NATIONAL GEOGRAPHICS* NOW AVAILABLE ... 738

JUNE 1968

VIENNA, CITY OF SONG ... 739
By Peter T. White, with photographs by John Launois (*Black Star*)

TRACKING DANGER WITH THE ICE PATROL ... 780
By William S. Ellis, with photographs by James R. Holland

TWO FACES OF THE ATLANTIC ... 794
Text with Atlas Map Supplement

CHARACTER MARKS THE COAST OF MAINE ... 798
By John Scofield, with photographs by B. Anthony Stewart

ANNOUNCING FOUR NEW GEOGRAPHIC BOOKS: AUSTRALIA, SPACE EXPLORATION, VANISHING PEOPLES, AFRICAN ANIMALS ... 844
By Gilbert M. Grosvenor

TREK BY MULE AMONG MOROCCO'S BERBERS ... 850
By Victor Englebert, with photographs by the author

MEXICO'S LITTLE VENICE ... 876
By W. E. Garrett, with photographs by the author

Index VOLUME 133 JANUARY-JUNE, 1968

January pp. 1–150
February pp. 151–298
March pp. 299–442
April pp. 443–586
May pp. 587–738
June pp. 739–888

Illustrations in bold face

A

Aborigines 844, 846–847; Australian 844, **845**
Acadia National Park, Maine 832, **838–839**
Achilles 13, 15
Adamson, Dr. Richard H. 231
Addi (Berber tribesman) 869–871
Adelia Maria (schooner) **577**
Adirondack Mountains, N.Y. **196–197**
Adventure (schooner) **814–815,** 823
Aerobridges: Schiphol Airport 546
Aetna Life and Casualty Company 295A, 579A
Afghanistan: "In the Footsteps of Alexander the Great." By Helen and Frank Schreider. Jan., pp. 1–65
  Bazaars and markets 31, 36
  Border, Soviet 41
  Capital 36
  Citadel, ancient **42**
  Cobbler **41**
  Fields, terraced **50–51**
  History 32–33; Trade centers 31, 39
  Horses 39, **46,** cover ill.
  Houses 43
  National sport (*buz kashi*) 39, 41, **46,** cover ill.
Afognak, Alaska 221
Africa *see African Animals;* Morocco; Vulture, Egyptian
African Animals (Leakey) 846, **847, 848,** 849
Ahmed (Moroccan) **873**
Ahvenanmaa, Finland 619
Aïd el Kebir (Moslem festival) 863–864, **864–865,** 869
Ainu people 844, 846–847
Airplane, amphibian **82–83,** 92
Aït Ali Ou Ikkou, Morocco 852; Sheik of 856–857
Aït Bou Guemmez (valley), Morocco 873
Aït Slilo, Morocco **870–871**
Akhmedov, Mr. 44
Alabama *see* Mobile
Alabama Dry Dock and Shipbuilding Company 392
Alabama State Docks, Mobile **368**
Åland (island group), Finland 619, 621
Alaruikka, Yrjö 624
Alaska 200; Earthquake (1964) 221
Alexander, Dr. Anne Joy **244,** 250
Alexander the Great: "In the Footsteps of Alexander the Great." By Helen and Frank Schreider. Jan., pp. 1–65
  Armor, sacred 13, 15, 58
  Army 3, 5, 8, 46; Booty 18, 28; Cavalry 18; Discipline 32, 58, 60; Generals 13, 15, 19, 32, 56; Mutiny and rebellion 12, 30, 31, 32, 56, 58, 64; Relations with 15; Siege machines 26; Speed 29; Transport **13–14, 26,** 41, causeway 19, 26, floating bridge 56
  Battles 15, 32, 56, **58–59;** Longest *see* Tyre; *see also* Gaugamela; Issus, Plain of
  Cities founded 3, 19–20, 31, 41, 43
  Conquests: Coastal campaign 15; Course of 5, 56, map 10–12
  Death 1, 12, 64–65
  Description and character 4, 5, 46
  Education 5, 9
  Empire: Area and extent 1, 5, 65; Government 15, 17, 25, 64; Language 5; Map 10–12; Reception 15, 19, 28; Treatment of conquered 12, 26; Unification 12, 27, 32, 64
  Explorations and studies 3, 5, 8, 64
  Historians *see* Arrian; Curtius
  Horse 6, 8
  Legends: Ram's horns 28, 30
  Names: Moslem 30; Russian 48
  Oracles and omens: Ammon 20, 28; Death prophecy 64; Delphic 1, 4, 6; Gordian knot 17
  Portrayals of: Coins **28,** 30; Marble head **1;** Mosaics **8, 23;** Paintings **14, 61, 65**
  Wives 43, 64; Wedding **65**
  Wounds 58, 64
Alexander's Wall, Iran 30
Alexandria, Egypt 19–20
Alkmaar, Netherlands: Cheese market **556–557;** Tulip growing 564
All-America Selections (flower competition) 725, 738
Allen, George E. **528**
alluns (hand drums) **856–857**
Alps, foothills of: Vienna 743, 749, **778–779**
Altar (mountain), Ecuador **280–281**
Aluminum industry: Czechoslovakia 174; St. Croix **84–85,** 86
Alvin (research vessel) **796**
Amazon (river), South America 294, 296; "Amazon" (television announcement). Feb., pp. 295A–295B
Amazon Indians **295A, 845;** Ecuador 262, **264, 293, 294,** 296
Ambato, Ecuador 279
America (yacht) 818; Replica **808–809**
American Bankers Association 527
American Institute of Biological Sciences: Shark studies 226, 228
American Museum of Natural History *see* Lerner Marine Laboratory
American Philosophical Society 794
American Special Forces *see* Special Forces
America's Junior Miss pageant: Mobile 375; Contestants **396**
Amjadieh Stadium, Teheran **316–317**
Ammon (Egyptian deity) 20, 21, 22, 28, 30, 64
Amsterdam, Netherlands: "The Netherlands: Nation at War With the Sea." By Alan Villiers. Apr., pp. 530–571
Amsterdam Voluntary Rescue Brigade 552
Amu Darya (river), Asia 39, 41
Anaconda (snake) 295A, **295B**
Ancient Times (NGS filmstrip) 134, 137, **137;** Pyramid **134**
Andes (mountains), South America: "Ecuador: Low and Lofty Land Astride the Equator." By Loren McIntyre. Feb., pp. 259–298
Angles (people): Scotland 416
Animal behavior: "Tool-using Bird: The Egyptian Vulture." By Baroness Jane van Lawick-Goodall. May, pp. 631–641
An Lac Special Forces camp, South Viet Nam 469, 473, 474–475; Airstrip **468–469**

Annaberg Sugar Mill, St. John 74
"Announcing Four New Geographic Books: Australia, Space Exploration, Vanishing Peoples, African Animals." By Gilbert M. Grosvenor. June, pp. 844–849
Antenna, dish: Ecuador 270, **298**
Anthropology *see* Aborigines
Antietam, Md.: Civil War battle 491
Antilles Air Boats: St. Croix **82–83**
Antisana (mountain), Ecuador 264, **274,** 295
Ants 505, **520–521,** 522
Apache Indians 111, 112, 118, 127
Aphids 505
Apodaca, Amado 882, 884
Apollo, Temple of, Delphi: Ruins **7**
Apostles, Twelve (statues): Notre Dame de Paris Cathedral **682,** 692; Sainte Chapelle Church **706–707**
Appian Way: Traffic laws 203
Applecross, Scotland 420, 422, 423
Applegate, Dr. Shelton P. 242, 246
Arabia china factory, Helsinki **598**
Arachnids *see* Scorpions
Archeology: Ecuador 268; Macedonia 6, 8, **8–9,** 9; Persepolis **36–37**
Arctic region: Codfishing 574, 576; Finland 590, 621, 623, 627; "Tracking Danger With the Ice Patrol." By William S. Ellis. June, pp. 780–793
Argentia, Newfoundland: U. S. Naval Station 783, 789, 790, 793
Aristotle 5, 9, 13, 25
Arizona: "Scorpions: Living Fossils of the Sands." By Paul A. Zahl. Mar., pp. 436–442
Arizona State University 437, 439
Arkansas River, U. S.: Channel 221
Armand, Louis 692, **692,** 696–697
Armed Forces museum and park, proposed, Wash., D.C. 380
Armenian fortress: Turkey **23**
Arnhem, Netherlands: Open-air museum 564
Arnold, Gen. Henry H. 584
Arosemena Gómez, Dr. Otto **262**
Arrian (Greek historian) 6, 20, 22, 32, 35, 56, 58, 60, 61, 65
Arrowhead: Big Bend National Park **109**
Ashraf, Princess (Iran) 308, **308**
Asia: "In the Footsteps of Alexander the Great." By Helen and Frank Schreider. Jan., pp. 1–65; *see also* Iran; South Viet Nam
Aspendus, Turkey 15
Aspiazu, Lautaro (Tayo) 284–285
Astronauts: Underwater weightlessness studies for **94–95,** 101–102
Atahualpa (Inca god-emperor) 273, 275
Athena, Temple of, Troy 13, 15
Atlantic Ocean:
"Dory on the Banks: A Day in the Life of a Portuguese Fisherman." By James H. Pickerell (*Black Star*). Apr., pp. 573–583
"The Lonely Dorymen" (television announcement). Apr., pp. 579A–579B
"Tracking Danger With the Ice Patrol." By William S. Ellis. June, pp. 780–793; *see* outline, *below*
"Two Faces of the Atlantic." June, pp. 794–797
Chart: Benjamin Franklin's **794;** Transparent **795**
Continental drift theory 794, 797
Currents 783, 785, 786, 787, 791, 792, 794, 797
Deposits, oil and gas 797
Diamonds **796,** 797
Islands 797
Map 785, 794
Marine life 787, **796,** 797; Herring migration chart **794**
Satellite photographs **791, 795**
Shipping lanes 783, 785, 787, 790
Size 797
Submarine mountain range 794, 797
Temperatures 791
Volcanic activity 797
Winds 783, 785, 792, 793, 797
Atlas Map Series, World: "Two Faces of the Atlantic." June, pp. 794–797
Atlas Mountains *see* High Atlas Mountains
Attocknie, Joe 132–133
Auca Indians: Ecuador 294
Augarten Palace, Vienna **765,** 775
Austerlitz, Czechoslovakia 167
Australia 847–848; Aborigines 844, **845;** Beaches **249;** Coral gardens **245;** Opera house **846;** Sharks 238, 239, **242–243, 244, 245,** 248, **248**
Australia (Brander, Harrell, Holthouse) 846, 847–848, **847**
Austria: Flag **745;** Social security system 755; *see also* Vienna
Austro-Hungarian Empire 739, 771; Rulers *see* Habsburg family
Autobahns (highways): Germany 203, 205
Automobiles, antique: Marmon (1920) **384;** Studebaker (1915) **216**
Auxins (plant chemical) 497
Avalon Peninsula, Newfoundland 783, 790
Aviation history: "National Geographic Society Honors Air Pioneer Juan Trippe." Apr., pp. 584–586
Ax, Montagnard: Viet Nam **451, 461**
Azalea Trail: Mobile 370, 397
Azalea Trail Maids: Mobile **370, 384–385,** 395, **396**
Aztecs 880, 882, 888; Pictographs 880, **883**
Aztlán (Aztec city) 880, 882, 883

B

baboosh (Afghan shoe) **41**
Baby Mack (schooner): Floating market **78–79**
Babylon 5, 12, 27, 64
bacalhau (dried cod) **580–581**
Bacchanalian festival: Znojmo, Czechoslovakia **182–183**
Badenoch (region), Scotland 415
Baffin Bay, Canada-Greenland 786
Bagpipes: Scotland **400–401,** 405–407, 412
Bahama Islands: Sharks **225, 240–241**
Bahnar tribe: South Viet Nam 485; Cemetery **467**
Baja California: Sharks **254–255**
Baker, Mount, Wash. 649, 654, **656,** 660
Baldwin II, Emperor (Constantinople) 701, 707
Balkh (province), Afghanistan 30, 39
Ballet dancers: Bar Harbor **840;** Finland **599;** Vienna **740–741, 761**
Balloon, hot-air **282**
Baluchistan Desert, Iran-Pakistan **60–61;** Alexander the Great, campaign of 58, 60, **61;** Floods 60, **61;** Irrigation **62**
Bamboo: Viet Nam **452, 457, 460, 461, 484, 485**
Bampur River, Iran 63
Bananas: Ecuador **264–265,** 284–285; Tonga 347
Bankhead Tunnel, Mobile 377
Banská Bystrica, Czechoslovakia 174
Bar Harbor, Maine 832, 840; Fourth of July parade **840–841;** Laboratory **820,** 832, 834–835
Bar Harbor Club, Bar Harbor **840**
Bardejov, Czechoslovakia 187
Barges: Bratislava **178–179;** Rotterdam **534–535**
Barnett, Marion M. **378**
Barns, prefabricated: Netherlands **538**

Barsine (wife of Alexander the Great) 64, **65**
Barylli, Walter 751
Baseball: Eisenhower party at opening game (1958) **528**; Riggs National Bank team (1936) **528–529**
Basin of the Chisos, Big Bend National Park 108, **110–111**, 115, 118
Baskets: Montagnards **449, 461, 473**, 473–474, **476–477**; Passamaquoddy Indians **834**, 839
Basking sharks **234**, 242
Bas-reliefs: Persepolis 29, **36**
Basswood (tree) **836–837**
Bath, Maine 816–817
Bats, fruit-eating: Tonga 329–330, **338–339**
Bayou La Batre, Ala.: Shrimp fleet **394–395**
Bear Island, Maine **842–843**
Beatrix, Princess (Netherlands) 567
Bedouin wedding procession 28, **31**
Beecher, Henry Ward 812
Beer, Bohemian 171, 183, 188
Bees 492, 503, 505, 521–522
Beethoven, Ludwig van 749, 751, 761, 764
Begonias **726**, 734; Seeds **732**
Beinn Eighe Reserve, Scotland 423
Beirut, Lebanon: Resort **24–25**
Bell, Alexander Graham 571; Grandson **529**
Bell telephone exhibit, opening of (1957): Smithsonian Institution **529**
Belle Isle, Strait of, Newfoundland 785
Bellingrath Gardens, near Mobile **369**, 395, **396–397**, 397
Ben Nevis (mountain), Scotland 415
Benalcázar, Sebastián de 264, 275, 295
Bendix Corporation: Dish antenna **298**
Benelux plan 571
Benjamin, S. G. W. 320
Berann, Heinrich C. **795**, 797; Map-paintings by **542–543**, 795, 797, June supplement
Berbers (tribespeople): "Trek by Mule Among Morocco's Berbers." By Victor Englebert. June, pp. 850–875
Citadels 852, **870–871**, 874
Cooking 862, **862–863**
Dancing and music **856–857**, 860–862
Education 867, 875
Farming 854, **858–859**, 862, **868–869**
French rule 852, 853, 873, 875
Games **861, 866–867**, cover ill.
History 850, 852, 853, 873, 875
Hospitality **852–853**, 856, 862, 870, 873, 874, 875; Tea ceremony **874–875**
House-building **860**
Language 852, 854, 867
Marriage customs 862, 863, 871
Origin 850, 856, 873
Religious practices 863–864, **864–865**
Tattooing **850, 854**
Transportation 850, **851**, 869
Tribes 854, 862 *see also* Haddidou, Aït; Mgouna; Morrhad, Aït
Villages **851**, 856, 857, **858–861**, 865, 868, **870–871**, 875 *see also* Haodéguine; Ouzirimt; Tinerhir
Washing clothes 864, **869**
Women, status of 862, 863, 864, 867, 871, 873
Bernhard, Prince (Netherlands) **567**
Bernstein, Leonard 751
Bessus (Persian general) 30, 33, 39, 41, 43, 45, 48
Bethlehem Chapel, Prague 158
Bibesco, Princess **710**, 717
Bibi Khanum Mosque, Samarkand **48**
Bienville, Jean Baptiste Le Moyne, Sieur de 373
Big Bend National Park, Tex.: "Big Bend: Jewel in the Texas Desert." By Nathaniel T. Kenney. Jan., pp. 104–133
Accommodations 108, 110, **114–115**
Establishment 107
Fossils 107
History of area 109, 112, 118
Hot springs 121
Indian artifacts **109**, 114–115
Map 113
Plant life 104–105, **107, 116–117**
Slide talks **108–109**
Trails 107, 115, 122
Visitors, number of 107, 108
Wildlife 108–109, **118–119**, 122
Bighorn sheep, Desert 122
Birds: *Birds* (NGS filmstrip) 134, **134, 136**, 137; "Tool-using Bird: The Egyptian Vulture." By Baroness Jane van Lawick-Goodall. May, pp. 631–641
Bison, European 174
Black-eyed Susans: Vienna **766–767**
Black Gap Wildlife Management Area, Tex. 122
"Black light" (ultraviolet lamp) 439–440, **441**
Black snake **508**, 522
Blair, James P., photographer: "Czechoslovakia: The Dream and the Reality." Feb., pp. 151–193; "New National Park Proposed: The Spectacular North Cascades." May, pp. 642–667
Blair, Jonathan **206**
Blessing of the fleet: Bayou La Batre, Ala. **394–395**
Bligh, Capt. William 328, 356, 358, 360
Bloodroot (plant) **496**, 497
Blowholes: Tonga 330, **344–345**
"The Blue Danube" (Strauss) 753, 765
Blue Mosque, Mazar-i-Sharif **47**
Blue sharks **234**, 238, **246–247**
Blueberry plants: Maine **818–819**; Washington **660**
Bo, Capt. Do Cao **470**, 475, 477, 479, 480, 481, 482, 487
Böck, Lois **762**
Bodger, Howard 725, 731, **733**
Bodger Seeds, Limited 725; Field **729–730**; Flower innovations **737**
Bohemia (kingdom) 154, 157, 158, 164, 185
Bohemia (region), Czechoslovakia 151, 160, 163, 164, 171, **175**, 181–182, 186, 188, 190, 192
Bolívar, Simón 262, 275, 279
Boman, Gunnar 619, 621–622
Bon Secour, Ala. 392, 394, 395
Bon Secour Bay, Ala. 395
Books, NGS: "Announcing Four New Geographic Books: Australia, Space Exploration, Vanishing Peoples, African Animals." By Gilbert M. Grosvenor. June, pp. 844–849
Boothbay Harbor, Maine 818–819; Playhouse **806–807**
Boquillas, Mexico 124–126, **126–127**, 128
Boquillas Canyon, Texas-Mexico 122, **132–133**
Borge, Victor **75**, 78
Boschman, Piet 564
Bothnia, Gulf of 593, **608**, 616, 619, 622
botters (fishing boats) 564, 566
Bounty, H.M.S.: Mutiny 328, 356, 357, 358, stamp commemorating **356**
Bource, Henri **224**
Bowdoin College, Brunswick 805, 809
Boyd, Alan S. 208, 584
Boyd, Mrs. Alan S. 584
Bradford, Charles P. 807
Brain coral: Buck Island reef 78, **87**
Brandeler, A. L. van den 539, 541, 543
Brander, Bruce 846, 847
Bratislava, Czechoslovakia 169, 170, 173; Riverfront **178–179**
Brazil: "Amazon" (television announcement). Feb., pp. 295A-295B
Breese, Dennison **138**, 141, **141**, 145, 146, **147**, 148, 150
Brewer, Austin **69**
Brexner, Edeltraud **761**
Bridges: Floating 56, **57**; Suspension, world's longest 214, **218–219**; Tunnel-bridge, world's longest 220–221; World's longest 220
Bridwell, Lowell K. 208

Brinkhoff, Mr. and Mrs. H. D. 210, 214
British Fishery Society 427, 433
Brno, Czechoslovakia 163, 164, 167; Motorcycles **172–173**; Passion play 164–165
Brookley Air Force Base, Mobile **388–389**
Brown, David G.: Quoted 443, 484–485
Brown, Edmund G. 327, **331, 335,** 336
Brown, Perry 107, 112
Brumboret Valley, Pakistan 52; Village 53–54
Brunswick, Maine 805, 809
Brushwood, William H., Sgt. First Class 468, 470
Buachaille Etive Mor (hill), Scotland 416, **416–417**
Bucephalus (horse) 6, 8
Buck, Col. Jonathan 832
Buck Island Reef National Monument, Virgin Islands 78–79, **86–87**; Map 73
Buckner, Harry 644, 647, **648**
Bucksport, Maine 832
Bulb industry, flower *see* Netherlands, *outlined*
Bull sharks **232,** 238, 244, 248, 250, 254, 256
Bulldozers: Highway construction **202, 203**
Bulova Watch Company subsidiary: St. Croix **75**
Buon Rocai, South Viet Nam **468,** 470, 473, **473–474, 476–477,** 478, 479, 480
Buon Romen, South Viet Nam **468,** 473, 477, 478, 482
Burgtheater, Vienna **746**
Burke, Frank 102–103
Burma: Hill tribes 445
Burnoose (garment) 864, **864–865, 869**
Burns, John **239**
Burns, John A. 327, **331,** 336, 342
Burns, Mrs. John A. 329, **331,** 336
Burpee, David 723, 724, **733**
Bush, Edward **833**
Bush, Dr. and Mrs. Richard D. **833**
Bushmen, African: Kalahari Desert 844, 847
Butterfield, Neal 644, 646, **649,** 660
Butterflies 520; Monarch 520–521; Nymphalid **516**; Swallowtail 503, **518**
buz kashi (Afghan game) 39, 41, **46,** cover ill.
Buzomi, Francesco, Father 447
Byrd, Adm. Richard E. 546, 584

C

C-119 (airplane) **388–389**
Čabart, Zdeněk 185
Cactus: Cholla 442, **442**; Peyote 127; Prickly pear 104, **116–117**; Saguaro 440, **441, 442**; Strawberry **107**
Cadillac, Antoine de la Mothe 373–374
Cadillac Mountain, Maine **798–799,** 832, **838–839**
Cairngorms (mountains), Scotland 413, 415
Calanus (fakir) 64
Calazacón, Abraham 262, 290–291
Calazacón, Felix **267**
Caledonian Canal, Scotland **410–411**
"Calendar Islands," Maine 807
California: Highways **195,** 200, 215; Shark attacks 243, 256
Callahan, William 76
Calland, Lt. Col. Robert 380, 381–382
Calypso musicians: Virgin Islands **67, 100–101**
Camden, Maine 815, **817,** 823
Camels: Iraq **30–31**; Texas 122
Cameron clan: Scotland 407
Camp, Helen B. 820–821
Campbell soldiers: Scotland 415, 416
Campobello Island, New Brunswick 840, 842
Canada (NGS filmstrip) 134, **136,** 137; Peace Tower of Parliament **134**
Canals: "Mexico's Little Venice." By W. E. Garrett, June, pp. 876–888; *see also* Netherlands
Candelilla (plant) 119, **124–125**; Wax 120
Caneel Bay Plantation, St. John 69, **70–71,** 74
Cape Breton Island, Nova Scotia: Sharks **239**
Cape Race, Newfoundland 790, 792
Cape Wrath, Scotland 433
Capital Beltway, Wash., D.C. **207**
Cappadocia (region), Turkey: Cone dwellings 17, **20–21,** chapel **21**
Captains Courageous (Kipling): Quoted 574
Caracal (animal): Africa **849**
Caravan, camel: Iraq 28, **30–31**
Caravansaries: Afghanistan 31
Caravelle Hotel, Christiansted **82–83**
Carcharodon megalodon (prehistoric shark) 242, 243, 246
Caribbean region *see* Virgin Islands
Caribou (U. S. aircraft) **457**
Carlin, Tom **94,** 101–102
Carlin Gold Mine, Nevada: "Nevada's Mountain of Invisible Gold." By Samuel W. Matthews. May, pp. 668–679
  Crews 674, 677
  Discovery 668, 670
  Earthmovers: Shovels 670, **674,** 676, **676**; Trucks 670, **671,** 674, 676, **676**
  Investment and profits 668, 670, 671, 677, 679
  Management 674
  Map 672
  Ore: Assaying 670, 674, 675, 676; Microscopic particles **668**; Processing *see* Gold ore processing; Yield 670, 671, 673
  Overburden *see* Waste rock, *below*
  Plant 668, 673, **673, 674–675,** 676–677, **676–677**
  Waste rock 668, 670, 676; Blasting **670–671**
Carp (fish): Czechoslovakia **182**
Carpathian Mountains, Czechoslovakia 174
Carr, Capt. Donald G. 450
Carrier, Lt. Stephen C. 786
Cars, antique **216, 384**
Carson, Rachel 806–807
Carson Seacoast Project 806
Carstens, Johan 94
Carter, Amon G. 107
Casa Grande (mountain), Chisos Mountains **110, 114–115**
Cascade Pass, Wash. **652–653, 654**
Cascade Range, Canada-U. S. 649 *see also* North Cascades
Casco Bay, Maine 805, 807
Caspian Gates (pass), Elburz Mountains 29, 41
Caspicara (artist) 266; Sculpture **272–273**
Castillo, Rose **725**
Castine, Maine 823–824, **832–833**
Castles: Czechoslovakia 161, 163, **175, 178,** 188, 190–192; Finland **617**; Scotland **398, 421**
Castolon, Tex. 128; General store **129**
Castor-oil plant **727,** 732; Seeds **732**
Caterpillars 520; Hornworm **515**
Cathedrals *see* Notre Dame de Paris; St. Stephen's
Cathey, Henry M. 738
Cattle: Scottish Highlands **416–417**
Cave, underwater: Tonga 362, **362–363,** 364
Cave dwellers: Chisos Mountains 126–127, pictographs **109**
Cayambe (mountain), Ecuador 259, 262, 267, **274–275,** 295
Cayapa Indians: Ecuador 267, **297**
Ceibo trees: Ecuador 283, 289
Ceilidh (Gaelic songfest) **423**
Celts: Scotland 416, 418, 425
Census Clock: Washington, D.C. **220**
Central University, Quito **271**
České Budějovice, Czechoslovakia 163, 188, 190
Český Krumlov (castle), Bohemia 190
Challenger, Mount, Wash. 661, **666–667**

Challenger Glacier, Wash. **644,** 661
Cham (Montagnard group) 447
Chandler, Ronald P. 88
Chapel Royal, Tonga **324, 326–327, 330,** 334, 337, **349**
Chappabitty, Otis 132
"Character Marks the Coast of Maine." By John Scofield. June, pp. 798–843
Chariots, scythed 22
Charles IV, Emperor (Holy Roman Empire) 158, 163, 174, 187, 190
Charles, Prince (Scotland) 407, 409, 419
Charles University, Prague 158
Charlotte Amalie, St. Thomas 67, 72, 76, 92, 94–96, **98–101;** Population 96, 99; Synagogue **96–97;** Transfer Day celebration **69,** 92, **98–101;** Yacht charter 102–103
Cheese market, Alkmaar **556–557**
Chehab, Maurice **27**
Chelan, Lake, Wash. 644, **646–647,** 647–648, 656
Chesapeake, Va. 221
Chesapeake Bay, Md.-Va.: Bridge-Tunnel 220-221; Sharks 248, 250
Cheviot sheep: Scotland 406, 427; Wool **405**
Chicago, Ill.: Interchange **212–213**
Chicory 500, 503, **510–511**
Chili, Manuel *see* Caspicara
Chimborazo Province, Ecuador 280; Barley field **290–291**
Chimney sweeps: Vienna **768**
Chisos Mountains, Tex.: "Big Bend: Jewel in the Texas Desert." By Nathaniel T. Kenney. Jan., pp. 104–133
Chisos Mountains Lodge, Big Bend National Park **114–115**
Chitral State, Pakistan 49, 55
Christ: Painting of 705; Relics of Passion 701, 707
"Christ in Agony" (painting) 266–267
Christian, Fletcher 328
Christianity: Viet Nam 447, 482
Christians: Cappadocia 21, cone dwellings **20–21**
Christiansted, St. Croix 74, 76, 78, **82–83,** 90; Transfer Day **68**
Christiansvaern, Fort, St. Croix 76
Chromosomes, plant 492, **499**
Chrotta (stringed instrument) **162**
Church College, Hawaii: Rugby team 340
CIDG (civil irregular defense groups): South Viet Nam: "Viet Nam's Montagnards." By Howard Sochurek. Apr., pp. 443–487
  An Lac camp **470,** 475, 479, 481
  Dak Pek camp **462–463,** 470
  Dependents' housing **486**
  Mission of 444–445, 448
  Pay 456, 487
  Rations 453
  "strikers" (CIDG soldiers) **444–445, 458–459, 487**
Cilician Gates (pass), Taurus Mountains 17, 18
Cinnamon Bay, St. John **77, 81**
Círculo Venecia, Mexcaltitán 876, **877–881,** 880, 882
Cité, Île de la, Paris: "Île de la Cité, Birthplace of Paris." By Kenneth MacLeish. May, pp. 680–719
  Aerial view **719**
  Bird market **705,** 718
  Bridges **686–688,** 705, **708–709**
  Buildings, major *see* Conciergerie; Notre Dame de Paris; Palais de Justice; Sainte Chapelle
  Excavations 683, 686–688, 691, 719
  Flower market **704,** 718
  History 683, 686, 687–688, 697, 699, 704
  Inhabitants **684, 685, 714–715**
  Legends 699
  Map drawing, with key **689–691**
  Memorial 691, 717
  Residential sections 697, 699, **714–715**
City planning *see* Rotterdam; Tapiola; Vienna, *outlined*
Civil irregular defense groups: South Viet Nam *see* CIDG
Civil War battles: Antietam 491; Mobile 378, 380–382, **380,** 387
Clan Macpherson House and Museum, Newtonmore **412,** 415
Clasby, Ensign Robert 787, 789
Clem, Dr. L. William 231
Clementinum, Prague **162**
Cleveland, Ohio: Museum 218, fossils **215**
Coal mines: Czechoslovakia 167, 169
Cobbler: Afghanistan **41**
Cock-of-the-rock feathers 262, **293, 294**
Coconuts: Tonga 327, **346**
Codfish, Fresh-water 647
Codfishing: "Dory on the Banks: A Day in the Life of a Portuguese Fisherman." By James H. Pickerell (*Black Star*). Apr., pp. 573–583; "The Lonely Dorymen" (television announcement). Apr., pp. 579A–579B
Coenus (Greek general) 56
Coerr, Wymberley deR. 262
Cofán Indians: Ecuador 262, **264, 293,** 296
Coffee grinder **129**
Coffin, Robert P. Tristram: Quoted 826
Cohen, Patrick 447–448, 449, 450, 456, 458, **459,** 463, 468, 470
Coins, ancient **28,** 30, 53
Colima warbler 108, 118
College of the Virgin Islands, St. Thomas 74
Collinsville, Ill. 214; Highway interchange 214
Colombia: Contraband traffic 279; Oil fields 298
Colonial Glacier, Wash. 656–657
Colorado Indians: Ecuador 262, **267,** 290–291, **292**
Columba, St. 418, 434
Columbus, Christopher 73, 83
Comanche Indians 109, 112, 115, 118, **120–121,** 124, 126–127; Present-day 129, 132–133
Comanche Springs, Tex. 112, 114
Comanche War Trail, U. S.-Mexico 109, 112–114, 118, 124; Map 113
Combs, Mrs. William H. **808**
Commercial Street, Portland 808
Communism: "Czechoslovakia: The Dream and the Reality." By Edward J. Linehan. Feb., pp. 151–193; Uzbek S.S.R. 41, 43, 44, **48–49**
Communist banners: May Day, Helsinki **594**
Communists: Finland **594,** 601; *see also* Viet Cong
Companions (Greek cavalry) 18, 22
Computers: Traffic safety 206, **211**
Conary, Edwin F. **820**
Conciergerie, Paris 703–704, **716,** 717, 718; Map drawing **689**
Conditt, Georg 754–755
Cone dwellings: Cappadocia **20–21**
Congress Street, Portland **804–805,** 808
Conlon, Thomas 484
Conservation: Forest fires 666–667
Convoy, Allied ship: Collision chain 792–793
Cook, Jack 259, 267, 270, **274**
Cook, Capt. James 299, 328, 329, 346, 350, 364, 367
Cook, Roger 139, **140,** 141, 145, 146–147, 148, 150
Copeland, Debbie **371**
Copper industry: Finland 612, **618–619;** North Cascades 650, 654–655
Coppleson, Dr. V. M. 256
Coral Harbor, St. John **66–67,** 71
Coral reefs: Buck Island Reef National Monument 78–79, **86–87**
Coronations: "Coronations a World Apart." By Frederick G. Vosburgh. Mar., p. 299; "Iran's Shah Crowns Himself and His Empress." By Franc Shor. Mar., pp. 301–321; "South Seas' Tonga Hails a King." By Melville Bell Grosvenor. Mar., pp. 322–343
Corpus Christi procession: Vienna 774–775, children **753**
Corsair IV (yacht) 817

Cotacachi (mountain), Ecuador **269**
Cotopaxi (mountain), Ecuador **261,** 267, 270, 273, **274**
Cotton trade: Mobile 378, 387
Courtney, Mrs. Beryl **648**
Courtney, Ray 644, 646–647, 654, 665, **665;** Family 646, 665
Courts, law *see* Palais de Justice
Cousteau, Jacques-Yves 226, 255
Cow: Statue of 564
Crader, Jeannine 383
Craig, Earl M. 676–677
Crane, hydraulic 142, **143**
Crane operator, woman **176,** 188
Crawford, Frederick C. 797
Creosote bushes **116–117**
Crespo, Isabela 884, **886**
Crespo, Julio 876, **876,** 882, 884, 886, 888
Crespo, Pepi **883**
Crespo Vega, Ximena **266**
Crofters' Commission: Scotland 411, 412
Cropp, Ben 224, 243
Cross of Christ: Dories **578–579,** 579A
Cruz Bay, St. John 68, **78–79,** 86
Cuenca, Ecuador 281–282, **282–283;** Hat factory **288;** Market **284–285**
Culloden Moor, Scotland 407; Battle 407, 409
Cup, hollow-handled **185**
Cupp, David F., photographer: "Nevada's Mountain of Invisible Gold." May, pp. 668–679
Curie, Pierre and Marie 185
Curtius Rufus, Quintus (Roman historian) 37, 38, 39, 49, 53
Cuthbertson, Frank G. 725, 738
Cyrus the Great (Persia) 299
ČZ motorcycles: Czechoslovakia **172–173**
Czechoslovak Republic 154, 183
Czechoslovak Socialist Republic (C.S.S.R.) *see* Czechoslovakia
Czechoslovak Youth Union: Delegates **166**
"Czechoslovakia: The Dream and the Reality." By Edward J. Linehan. Feb., pp. 151–193
Agriculture 167, 171, 188; Farm **170–171**
Architecture **156–157, 160–162,** 161, 163, **184–185, 193**
Capital *see* Prague
Castles 161, 163, **175, 178,** 188, 190–192
Cathedrals and churches **154, 161,** 163, 164
Communism 151, 153, 154, 160–161, 164, 174, 178, 188
Economy 154, 164; Reform 155
Facts and figures 164
Family life 192
Flag **164**
Gypsies 176, 178
History 151, 154, 158–159, 163, 167, 170, 183, 185 *see also* Communism, *above*
Industries 154, 163, 169, 174, 176, **176–177,** 186, 188, **190–191;** Glassmaking 181–182, **186;** Steel **152–153,** 176
Map 164–165
Mining 167, 169, 177, 185
Performing arts **162,** 164–165, 186, **189, 198**
Religion 154, 155, 159, 164
Soviet visitors, official 173, 176
Spas **184–185,** 185–187
Sports and gymnastics **167;** Skiing 178–179, 180
U. S. tourists 155
Weddings **159,** 164
Women workers **171, 172–173, 176,** 188, **191**
Czechs 151, 153, 154, 170
Czobel, Margit (Baroness Mednansky) 190–192

D

Dagg, Dr. Charles P. **820**
Dahshur, Egypt: Pyramid **29**
Dak Dru Doc, South Viet Nam 450, 468, 470
Dak Go Kram, South Viet Nam **446, 452**
Dak Pek River, Viet Nam **457**
Dak Pek Special Forces camp, South Viet Nam 450, 457, 464, 466, 468, 470; Patrol mission **462–463;** Security camp 448, 449, 450, 454, 456, 467–468; Viet Cong attacks 457–458, 460, 470
Dak Peng Sial Peng, South Viet Nam 450, 456, 458, 459
Dak Peng Sial-Peng Set, South Viet Nam **454–455,** 466
Dak Poko River, Viet Nam **445,** 457, 470
Dak Son, South Viet Nam: Viet Cong attack 452
Dak Sut, South Viet Nam 449
Dak To Special Forces camp, South Viet Nam 443, 447, 448, 449, 464
Dak Tung, South Viet Nam **446**
Dale, Bruce, photographer: "Île de la Cité, Birthplace of Paris." May, pp. 680–719
Dalriada, Kingdom of (ancient Scotland) 413, 414, 416, 418
Dalrymple, Sir John 416
Daly City, Calif. **220–221**
Damariscotta, Maine 819
Dams: Iran **63;** Washington 648, 662, **662–663;** *see also* Delta Flood Control Project, Netherlands
Damselfly **504–505,** 521
Dancers: Greece **4–5;** Kafir women **54–55;** Morocco **856–857;** Scotland **400;** Tonga **322–323, 326–327, 334–335;** *see also* Ballet dancers
Dandelions 492, **506–507**
Danmark (Danish training ship) **92–93, 98;** Captain **93**
Danube River, Europe 164, 170, **178–179;** Vienna 739, 743, 747, 751, 753; *see also* Old Danube
Dar Chinh, South Viet Nam 479
Darius III, King (Persia): Conflicts with Alexander the Great 5, 17, 18, 19, 22, **23,** 27, 29, 32, 41; Daughter 64, **64;** Death 29, 30, 41
Darwin, Charles: Quoted 521
Dasht-i-Margo (region), Afghanistan 32, 33
da Silva, Capt. Alvaro Abreu 576, 578, 580, 582
Date Line, International 349, 357–358
Dauphin Island, Mobile Bay 368, 373, 397
Dauphin Street, Mobile 376
Davidson, J. O.: Engraving by **380,** 381
Davis, Beulah 251, 254
Davis Strait, North Atlantic 574, **576–577;** Map 576
Dawnlight (yacht) **70**
Daylight, 24-hour: Finland **624–625**
Death, Desert of, Afghanistan 32
Death versus Folly: Mobile Mardi Gras 378
Decompression methods 141, 142, 145–146, **147**
Deep Diver (submarine): "A Taxi for the Deep Frontier." By Kenneth MacLeish. Jan., pp. 139–150
Batteries 146; Pod **138–139, 142**
Decompression system **141,** 142, **142,** 145–146, **147**
Designers 141
Diagram **142**
Divers' compartment **141,** 142, **142**
Forward compartment **140, 142**
Propellers **142,** 147
Speed 143
Uses 140
Deep Sea Fishing Rodeo: Mobile Bay **393**
Deer 674; Black-tailed **659,** 665; White-tailed **119**
Deering Oaks (woods), Maine **804–805,** 808
Delaware: Highways 200
Delft, Netherlands: Delftware **546;** Hydraulics laboratory 537, 539, **540;** Technical University research laboratory **570**
Delphi, Greece: Ruins 1, **6–7**
Delphic Oracle 1, 4, 6
Delta Flood Control Project: "The Netherlands: Nation at War With the Sea." By Alan Villiers. Apr., pp. 530–571
Completion 542
Construction 536, 539
Cost 533, 543
Desalinization 537, 542–543
Effects of 543
Flood control 533; Fascine mats **541;** History 537
Highways 537, 542

Islands, man-made 541, **545**
Lakes, fresh-water 542–543 *see also* IJssel Meer
Land reclamation 533, 536
Maps: Land reclamation 536; Rhine-Maas-Schelde area 542–543
Demel's pastry shop, Vienna **758,** 775, 777
Denholm, David S. 731, **732**
Denholm Seed Company 731; Greenhouse **732–733**
De Porceleyne Fles, Delft **546**
Depression (1930's) 526
de Roos, Robert: "The Flower Seed Growers: Gardening's Color Merchants." May, pp. 720–738
Deserts: "Scorpions: Living Fossils of the Sands." By Paul A. Zahl. Mar., pp. 436–442; *see also* Baluchistan; Big Bend National Park
"Devastated City" (Zadkine) **554**
Devonian period 215, 218; Fossils **215**
Dez River, Iran: Dam **63**
Diablo Lake, Wash. 648, 649, 662, **663**
Diamond cutter: Netherlands **551**
Diamonds, Sea **796,** 797
Diatoms **796**
Díaz del Castillo, Bernal 888
Diba, Farideh **315**
Dikes: Netherlands 533, 539, **545**
Dionysus (Greek god) 48
Dir State, Pakistan 56
Dirksen, Everett: Quoted 732
Divers and diving: "A Taxi for the Deep Frontier." By Kenneth MacLeish. Jan., pp. 139–150
Decompression 141, 142, 145–146, **147**
Deep diving: World record 145
Lockout dives: Deepest 146–148, 150; Longest 144
Pressurization **141,** 142, 150
Djemaa el Fna, Marrakech 850
Dobelice, Czechoslovakia 174
Dogwood, in bloom **493,** 503
Donaupark, Vienna: Tub boats **775**
Donkeys: Morocco 850, **851**
Dora Stratou dance troupe **4–5**
Dordrecht, Netherlands 542, 568
Dories: "Dory on the Banks: A Day in the Life of a Portuguese Fisherman." By James H. Pickerell (*Black Star*). Apr., pp. 573–583; "The Lonely Dorymen" (television announcement). Apr., pp. 579A–579B
Dornie, Scotland: Pub **413**
Dounreay, Scotland: Atomic-energy plant 434
Down East (Maine): Origin of term 800–801
Downing, George 395, 397
Dragonflies 504, 521
Drawbridge: Mexcaltitán street canal **881**
Dresden, Maine: Town meeting **812,** 815–816
Drunk Bay, St. John **102–103**
Duerloo, Peter 74
Dugout canoes: Mexcaltitán 876, **881, 883,** 884, 888
"dumpobilia" 804
Dun Add, Scotland 418
Durban, South Africa: Sharks 250–251
Dusky sharks **233,** 238, **251,** 254
Dvořák, Antonín 181
Dyer, John **75**

E

Eagle Island, Maine 807
Earhart, Amelia 546
Earthquake: Alaska 221
East Boothbay, Maine **808–809,** 818
Eastern Flevoland polder, Netherlands **538**
Eastman, Capt. Seth: Painting by **120–121**
Eastport, Maine 835, 838–839
Eckert, Herbert 755, 758, 760
Eckler, A. Ross **220**
"Ecuador: Low and Lofty Land Astride the Equator." By Loren McIntyre. Feb., pp. 259–298
Agriculture **264–265, 278,** 282–283, 284–285, 288, 290, **290–291**
Art 266-267, **268, 271, 272–273**
Border dispute 263, 283
Capital *see* Quito
Climate 259, 262, 263, 293
Contraband traffic 279, 283
Education 271, 276; University **271**
Exports 265, 281, 284, 287, **288**
Facts and figures 263
Festivals **276–277, 282**
Flag **262, 263**
Government 275; President **262**
Handicrafts 264, **266,** 279
History 262, 263, 264, 268, 273, 275, 295–296
Indians 276, **277, 284,** 296 *see also* Auca; Cayapa; Cofán; Colorado; Jívaro; Secoya
Industry 285, **286, 289;** Panama hats 281, **288,** 289
Language 263, 267, 296
Map 263
Markets 264, **284–285**
Missionaries 293, 294, 296
Oil industry 294, 296, 298
Population 263
Roads 289, 292; Pan American Highway 270, 276, **279,** 283
Volcanoes, active **260–261,** 273
Edam cheeses: Alkmaar **556–557**
Eduskunta (parliament): Finland 595, 601
Egrets, American **134**
Egypt, ancient 19–22
Eilean Donan Castle, Scotland **398;** Banquet hall **421**
Eilean Maree (island), Scotland 423, 425; Money trees **420,** 425
Eindhoven, Netherlands: Electronics firm 568–569, **570–571,** 571; Pre-lenten carnival **568**
Eisenhower, Dwight D. **528,** 529; Administration 200
Eisenhower Expressway, Chicago **213**
Elasmobranchs *see* Sharks
El Dorado 275, 295, 298
Elephants in battle: India **58–59**
El Glaoui (Berber leader): Castle 875
Elizabeth II, Queen (Great Britain) 72, 325, 337, 346
Elkhorn coral **86–87**
Ellington, Richard 86
Ellis, William S.: "Tracking Danger With the Ice Patrol." June, pp. 780–793
Ellsworth, Lincoln 584
Ellsworth, Maine: Pancake breakfast **841**
Ely, Myrna 388
Emami, Dr. Seyed Hassan **306,** 318
Embroidery, petit point **754–755**
"Emigrants Attacked by Comanches" (Eastman) **120–121**
Enchanted Isle *see* St. Louis, Île
Encyclopaedia Britannica, Inc. 295A, 579A; "The World in Geographic Filmstrips." By Melvin M. Payne. Jan., pp. 134–137
Englebert, Victor **852, 873;** "Trek by Mule Among Morocco's Berbers." June, pp. 850–875
Eniwetok Marine Biological Laboratory 246
Entezam, Mohammad 39, 41
Ephesus, Asia Minor 15, 17; Ruins **16;** Wrestlers **18–19**
Equatorial Monument, Ecuador **259**
Erkko, Aatos 593
Ervi, Aarne 597
Esmeraldas, Ecuador 291
Esmit, Adolf 95
Europe *see* Czechoslovakia; Finland; Netherlands; Paris; Scotland; Vienna
Europoort, Rotterdam 557–558; Map-painting **542**
Everest, Mount, Nepal-Tibet 584
Evergreen (oceanographic vessel) **782,** 783, **786–787,** 787, **788, 789,** 791–792, 793
"Evoluon," Eindhoven 568–569, **570–571,** 571
Ewe, River, Scotland 431, 432

F

FGF (U.S. Navy plane): Wreck **796**

F–28 Fellowships (airliners): Manufacture of 546, 549, **550**
Fabrics, hand-printed 74, 97; Tonga **354–355**
Fairleigh Dickinson University 88
Falcon Island, Tonga 328, 365, 367, **367**
Faltys, František "Frank" 163, 173, 176, 179, 182
Farah, Empress (Iran) 299, **300,** 308, 311, **313,** 315, 317, **318,** 319, 320
Farahnaz, Princess (Iran) **308,** 315, **315,** 318, 320
Farragut, Rear Adm. David Glasgow 378, 380, **380,** 381
Favoriten district, Vienna 754, 755, 759
Favour, Paul, Jr. 832
Fawzia, Princess (Egypt) 308
Feibelman, Sam **389**
Fe'iloakitau Kaho, Sione (John) 353, 354, 356
Felix III (Mardi Gras king) 374, 375
Ferdowsi Avenue, Teheran **303**
Ferguson, Joseph 392
Ferguson, William 133
Ferris wheel: Vienna **774**
Ferry-Morse Seed Company 732, 733, 734, 737; Laboratories 734, **735**; Seed harvest **722–723**
Fialka, Ladislav **189**
Fields, Jack, photographer: "The Flower Seed Growers: Gardening's Color Merchants." May, pp. 720–738
Fiji Islands, South Pacific 327, 329, 361
Filmstrips, NGS: "The World in Geographic Filmstrips." By Melvin M. Payne. Jan., pp. 134–137
  Collaboration 136
  Future projects 137
  Ordering information 137
  Phonograph recordings 135–136, 137; Authenticity of sound 137
  Production of 136
Finau Ulukalala II, Chief (Tonga) 361, 364
Finér, Oiva **590**
"Finland: Plucky Neighbor of Soviet Russia." By William Graves. May, pp. 587–629
  Architecture **588–589,** 595, 597, **600, 603**
  Coat of arms **587**
  Communists **594,** 601
  Economy 591, 597
  Facts and figures 597
  Farming **604–605, 606, 607,** 610
  Fishing **610–611**
  Flag **597**
  Government 598, 601; President *see* Kekkonen, Urho
  History 593, 602, 619, 621 *see also* Wars, *below*
  Industries: Glass **618**; Metallurgical 612, **618–619**; Wood and paper 606, 607, 616, 618, log rafting **608–609**
  Language 593
  Neutrality 598, 601
  Population 587
  Trade 593, 595, 597, 608, 616
  Wars 587, 590, 602, 607, 611–612
Finland, Gulf of **588–589,** 593, **602–603,** 603
Finn-Flare fashions **590**
Finnish National Ballet **599**
Finnish-Soviet relations 587, 590, 595, 597, 598, 601, 607, 610–612
Finns: Sports competitions 597, 598, **602–603,** 616, 618, **620–621**
Fionn Loch, Scotland 432
First Congregational Church, Ellsworth, Maine **841**
First National Bank Building, Mobile **377**
Fisch, Olga 264–265, 266, 267
Fisher, Ed 255
Fishermen: Mexcaltitán 876, 882, **886–887**; Netherlands 561, 564, 566, nets **560–561**; South Viet Nam **481,** cover ill.; Thailand **134**; Tonga 328, 353, **359, 360**
Fishes 241; Fossils **215**; *see also* Sharks
Fishing, sport: Mobile **393**; Record 244, 255
Fishing industry *see* Codfishing; Herring industry
Fitch, Merritt **841**
Flamingos: Bellingrath Gardens **369,** 397
Fleming, Robert V.: "Robert V. Fleming, 1890–1967." By Melville Bell Grosvenor. Apr., pp. 526–529
Fleming, Robert W. 527
Fletcher, George 296
Fleury, Michel 686–688
Flood control: Netherlands *see* Delta Flood Control
Floods: Baluchistan 60, **61**
Floridsdorf district, Vienna 754–755
Flower breeding: "The Flower Seed Growers: Gardening's Color Merchants." By Robert de Roos. May, pp. 720–738
  Annual awards 724, 725, 738
  Cross-pollenation 724, **725, 729–730**; Collecting pollen **720, 731**
  Crossbreeding **725,** 734 *see also* Hybrids, *below*
  Discards (rogues) 724, 731
  Flower anatomy **724**
  Germination: Accelerated 720, 725, 734; Laboratories 734, **735**
  Hybrids 724, 725, **733,** 733–734, **737**
  Inbreeding: 724, 725, 733; Prevention **725,** 734
  Innovations 724, 725, 731, 732, 733, **736–737**; Future 723–724, 725
  see also Pollenation
Flower bulb industry *see* Netherlands, *outlined*
Flower seed industry: "The Flower Seed Growers: Gardening's Color Merchants." By Robert de Roos. May, pp. 720–738
  Best sellers 724, 731, 733
  Packaging 734
  Piracy 733
  Production costs 725, 734
  Retail income 720
  Seeds **720–721, 732,** 734, **735**; Costs and sizes compared **732,** 734; Harvesting **722–723,** 734; Testing 734, **735**
  Wholesale income 732, 734
Flowers, Len 251
Fluorspar (mineral) **126**
Flying buttresses: Notre Dame Cathedral **681, 682,** 692, 694
Flying foxes *see* Fruit bats
Fog formation 363, 364
Fokker, Anthony 546
Fokker aircraft plant, Amsterdam 546, 549, **550**
Folly versus Death: Mardi Gras 376, 378
"The Fools" (pantomime) **189**
Forel Scale (marine life study) **787**
Forman, Miloš **187**
Fort Knox, Ky. 670, 672
Fort Morgan, Mobile Bay 381, 382
Fort Stockton, Tex. 112, 114
Fort William, Scotland 415
Fossils: Devonian 215, **215,** 218; Miocene 242
Fountain Valley Golf Course, St. Croix 86, 88
Fourchu, Nova Scotia: Shark attack **238–239,** 243
Fourth of July celebrations: Maine **838, 840–841**
Fowler, Henry H. 529, 584
Foxes **432**; Gray 501, 503
France *see* Paris
France Field, Canal Zone **586**
Frank, Anne 550
Franklin, Benjamin 794; Chart by **794**
Frans Hals Museum, Haarlem 568
Franz Josef, Emperor (Austria) 766, 771, 778
Frederiksted, St. Croix 73, 79
Freeman, Carl M., III **470, 473,** 477, 479, 480, 481, 482, 484, 485
Freeport, Maine 813
French, Leroy 243–244
French colonial highway No. 14, Viet Nam 443, 449, **457**
French Revolution 683, 692, 701, 704, 705, 710, 711, 717
Friedrich, Friedrich L. 774
Friendly Islands *see* Tonga
"The Friendly Isles of Tonga." By Luis Marden. Mar., pp. 345–367
Friendship, Maine 819
Fries Museum, Leeuwarden 564

Frisians 537, 539
Fruit bats 329–330, **338–339**
Fulton, Robert B. 674
Fungi 492, 505 *see also* Mushrooms
Funk Island, Newfoundland 787

G

G. A. Serlachius Oy (paper mill), Mänttä, Finland 616
Gach Saran, Iran: Oil industry **32**
Gaelic language 404, 415, 432–433
Gaels 404, 412
Gairloch, Scotland 415, 425, 427, 430–431, 432
Gál, Štefan 169–170
Galapagos Islands 262, 263, 291, 293
Galler, Sidney R. 228
García, Magdaleno **129**
Garcia Lomeli, (Inez) **881**
"Gardening's Color Merchants: The Flower Seed Growers." By Robert de Roos. May, pp. 720–738
Gargoyles: Notre Dame de Paris **682,** 696, **696–697**
Garrett, W. E.: "Mexico's Little Venice." June, pp. 876–888
Garrick, Dr. J. A. F. 248
Gas, natural: Iran 32; Netherlands: Well **571**
Gascoigne, Myrtle **831**
Gaugamela, Iraq: Battle 12, 22, 32
Gecko, Banded **436**
Gemini 4: Space walk **845**
General Electric Co.: Underwater test center **94–95,** 101–102
Genetic research 820, 834
Genghis Khan 33
George Tupou I, King (Tonga) 337, 349–350, 351, 354
Geotropism 497
Geraniums **722–723,** 724, **727;** Seed **720–721**
Gerenuk (antelope) **849**
Gerlach Peak, Czechoslovakia **181**
Germany: Highways 203, 205
Gibson, Ernie 646, 655–656
Giddings, Al 243–244
Gilbert, Dr. Perry W. 228, 241, 246, **250**
Gimbel, Peter 224, 246
Glacier Lake, Wash. **657**
Glacier Peak, Snohomish County, Wash. 649, 654
Glacier Peak, Whatcom County, Wash. **656-657**
Glacier Peak Wilderness, Wash. 650, 651, 654; Map 651
Glaciers: Andes 259, 264, **274–275;** *see also* Icebergs; North Cascades
Glaoua section, Morocco 875
Glass, Bohemian ruby **364**
Glassmaking: Czechoslovakia 182, **186;** Finland **618**
Glassworks Bohemia plant, Poděbrady 181–182
Glen Affric, Scotland: Sheep shearing **404**
Glencoe, Scotland 415, **416–417**
Glencoe Massacre (1692) 415, 416
Glenfinnan, Scotland 419
Glenn, John H., Jr. 584
Glenn Springs, Tex. 118–119
Gloucester dory-schooner fleet: Last schooner **814–815,** 823
Gold: "Nevada's Mountain of Invisible Gold." By Samuel W. Matthews. May, pp. 668–679
Bullion 668, 670, **671, 674,** 677, **678–679**
"button" **675,** 677, **677**
Deposits 671, 672, 673; Map 672
Molten **669, 675,** 676
Ore *see* Carlin Gold Mine
Price 670, 671, 673, 675
Processing *see* Gold ore processing
Properties 672
Reserves 670, 672
Uses 670–671, 672
Gold ore processing: "Nevada's Mountain of Invisible Gold." By Samuel W. Matthews. May, pp. 668–679
Automation 668, 670, **674,** 676
"button" **675,** 677, **677**
Chemical process **675,** 676, 679
Crushers **675,** 676, 677
Diagram **674–675**
Equipment **669, 675,** 676, **677**
Filters **675,** 676
Slag **669, 675,** 676–677, **677**
Smelting furnace **669, 675,** 676
Waste **672–673,** 674, 679
Golden Gate Bridge, San Francisco 214, 218
Goldenrod **512–513,** 513
Goldfinch, American 497, 500, **518**
Goldsmith, Glenn 734, 737
Gomez Cruz, José Bernardo 574, 576
Gordian knot 17
Gordium, Asia Minor 17
Gordon, Avril **432**
Göreme Valley, Turkey: Cone dwellings **20–21**
Gothic architecture *see* Notre Dame de Paris; Sainte Chapelle
Gouda cheeses: Alkmaar **556–557**
Goudy and Stevens shipyard, East Boothbay **808–809**
Governors Island, N.Y.: International Ice Patrol headquarters 783, 789–790, **791**
Grace Harwar (windjammer) 621, 622
Grama grass **116–117**
Grampian Mountains, Scotland 413
Gran Colombia 275
Grand Banks, Newfoundland 783, 785, 790; "Dory on the Banks: A Day in the Life of a Portuguese Fisherman." By James H. Pickerell (*Black Star*). Apr., pp. 573–583; "The Lonely Dorymen" (television announcement). Apr., pp. 579A–579B
Grand Hotel Moskva-Pupp, Karlovy Vary 187
Granicus River, Turkey 13, 15, 46
Grant, Edward 803
Grapes, Concord **512–513**
Graves, William: "Finland: Plucky Neighbor of Soviet Russia." May, pp. 587–629; "Mobile, Alabama's City in Motion." Mar., pp. 368–397
Gray, Ralph **136,** 137
Gray sharks 238, 254
Grayling (atomic submarine) 801
Great Glen, Scotland 400, **410–411,** 415, 419
Great Hall, Park of Culture and Recreation, Prague **166**
Great Stirrup Cay, Bahamas 142
Great white sharks **228–229, 232,** 238, **239,** 243, 244, 245–246, **255,** 256
Greece, ancient 48, 53, 64 *see also* Macedonia
Greek headdress **4–5, 54–55**
Green, Dr. Earl L. 834
Green River, Wyo. **214**
Greenberg, Jerry, photographer: "Sharks: Wolves of the Sea." Feb., pp. 222–257
Greenland 786, 787, 791; Map 785
Greenland sharks **232,** 239, 256
Greenmount Beach, Queensland **249**
Greer, Dewitt C. 195
Gregory, Hanson 819
Gribble, C. F. **324**
Grieve, Robert 412–413
Griffons, Rüppell's 632, 638
Grinzing area, Vienna **758,** 767–768
Groningen, Netherlands: Grand Prix spectators **532;** University students **552**
Grosvenor, Edwin Stuart: Photographs by **346, 347, 365;** "South Seas' Tonga Hails a King." Mar., pp. 322–343
Grosvenor, Dr. Gilbert H. 738; Quoted 529
Grosvenor, Gilbert M. **136;** "Announcing Four New Geographic Books: Australia, Space Exploration, Vanishing Peoples, African Animals." June, pp. 844–849
Grosvenor, Mrs. Gilbert M. (Donna) 844, 849
Grosvenor, Dr. Melville Bell 849; Articles by: "Robert V. Fleming, 1890–1967." Apr., pp. 526–529; "South Seas' Tonga Hails a King." Mar., pp. 322–343
Official U.S. delegate to the

coronation of the King of Tonga 299
Photographs by **325, 326, 329, 335, 848**
Photographs of **331, 334, 365, 529**
Grosvenor, Mrs. Melville Bell (Anne Revis) 323, 325, **331, 334,** 337, **365**; Photograph by **326–327**
Groundhogs 491–492, 522
Gruber, Samuel **226–227**
Gruenther, Gen. Alfred M. **528**
Grumman Goose (airplane) **82–83**
Guamán, Regina **288**
Guayaquil, Ecuador 285, **286–287**; Museum 268; Waterfront **288**
Guayas River, Ecuador **287**
Guayas River Basin: Banana plantations **264–265,** 284
Guayasamín, Oswaldo 267, **268**
Guinea pigs: Ecuador 281, **285**
Guitarfish 241, **244**
Gulf Coast, U. S.: "Mobile, Alabama's City in Motion." By William Graves. Mar., pp. 368–397
Gulf Freeway, Houston: Television monitor **211**
Gulf Stream 780, 783, 787, 792, 794; Chart 794
Gulistan Palace, Teheran: Gardens **310–312**; Throne Room 302, **309**
Gustaf Vasa, King (Sweden) 593
Gypsies: Czechoslovakia 176, 178

H

Ha'amonga (trilithon), Tonga 330, 334, 341, **365**
Haarlem, Netherlands 568
Habsburg family 154, 159, 744, 746, 764; Palaces **746–749, 770–773**
Hacienda Zuleta, Ecuador 276, **276–277**
Haddidou, Aït (tribe): Morocco 850, **854,** 860–864, **860–861, 864–867,** cover ill.
Hadrian, Emperor: Temple ruins **16**
Hafez Avenue, Teheran **305**
Hagerstown Almanack: Quoted 515
Haggett, William 817
The Hague, Netherlands 531, 532, 558, **566–567,** 571
haïdou (dance) 860–862
Hájek, Miloslav **187**
Hals, Frans 546; Tomb 568
Hamad, Tizi (Pass) n' Aït, High Atlas Mountains 868–869, 870, **873**
Hamid, Fauzy Abd El 19, 21
Hamlin, Jean 95
Hammerhead sharks **222–223,** 231, **232,** 238, 246, **252–253**
Hanghe Ndu **470**
Hangö, Finland **614–615**
Hannegan Pass, North Cascades 660, **664**
Hans Hedtoft (Danish ship) 793
Hansen, Bill 668, **671,** 677, 679
Hansen, Capt. Vilhelm **93**
Haodéguine, Morocco 860–864, **860–861, 864–865**
Harding, John 224
Haringvliet (channel), Netherlands 541, 542
Haringvliet Dam 542, **544, 545;** Model **540**
Harjavalta, Finland: Copper smelter **618–619**
Harlfinger, Frederick J., II **93**
Harrell, Mary Ann 846, 847
Harris, G. C. **324, 325,** 338–339
Hartford versus *Tennessee* (naval battle) **380**
Hartzog, George B., Jr. 650
Harvey Aluminum: St. Croix **84–85,** 86
Hasunen, Einar 607, 610–611
Hatch, Edbury 816
Haussmann, Baron Georges 683, 687, 699
Hawaii: Governor *see* Burns, John A.; Highways 200; Sharks 251
Hayes, Capt. Robert L., II 474, 484
Heather: Scotland **430–431**
Hebrides (islands), Scotland 406, 425
Heezen, Dr. Bruce C. **795,** 797
Hellcat (airplane): Wreck **796**
Hellespont (straits), Turkey 13, **13–14**
Helsingin Sanomat (newspaper) 593
Helsinki, Finland **588–589,** 590, 597, 598, **600–601,** 627; Market Square **592–593**; Nickname 593
Helsinki Opera House: Backstage **599**
Helsinki Regatta **602–603**
Henbit (wild flower) 492, **495**
Henderson, Chuck 255
Henderson, Capt. N. D. S. 405–406
"Her Room" (Wyeth) 822–823, **824–825**
Herat, Afghanistan 31, **42–43**
Hercules HC–130B (airplane) **781, 782,** 783, 789, 791, 792
Herrera, Gloria **720**
Herring, Baltic 603
Herring gull **424**
Herring industry: Maine **834–835,** 835, 839–840; Scotland 427
Herring migration chart (1786) **794**
Hess Oil Virgin Islands Corporation **85,** 86
Heuifanga 'Ahome'e **334,** 342
Heurige (wine) **743, 758,** 767–768, 777
Heydrich, Reinhard 183
Hibernation 522
Hicks, John **231**
High Atlas Mountains, Morocco: "Trek by Mule Among Morocco's Berbers." By Victor Englebert. June, pp. 850–875
High Tatra Mountains, Czechoslovakia 178
Highland Games: Inverness **400–401**
"The Highlands, Stronghold of Scottish Gaeldom." By Kenneth MacLeish. Mar., pp. 398–435
Highlands and Islands Development Board: Scotland 412
Highway Beautification Act 209
Highways and roads, U. S.: "Our Growing Interstate Highway System." By Robert Paul Jordan. Feb., pp. 195–219
Electronic sensors 208
Eminent domain, power of 203, 209–210
Fatality rate 198, 205
Federal-aid requirements 207, 209
Future plans 208
Hazards **200–201,** 201, **206**
History 205, 216
Mileage 201
Real estate values 210, 214
Hilander, Arthur C. 674
Hilger, Sister Mary Inez 846
Hillary, Sir Edmund 584
Hilty, Mr. and Mrs. Wendy: Home **90–91**
Hindu Kush, Asia 37–39, 43, **44–45, 50–51,** 52
Hintsanen, Terttu **599**
Hitler, Adolf 154, 183, 203, 742, 744, 749
Hlavin, William J. **215**
Ho Chi Minh 444
Ho Chi Minh Trail, Southeast Asia 460
Hofburg Palace, Vienna **746–747,** 761, 764; Gates **748–749**; Spanish Riding School **745**
Holandova, Maria **176**
Holden, Wash. 655
Holland, Lt. Col. Charles Michael 443–444, 447
Holland, James R., photographer: "Tracking Danger With the Ice Patrol." June, pp. 780–793
Holt, Deane 228
Holthouse, Hector 846, 847
Holy Roman Emperor: Crown 764, **772**
Homer, Winslow 822
Homestake Mine, Lead, S. Dak. 668, 670, 672, 673
Honetschlager, Lorin 437, 438, **438,** 439, 440
Honetschlager, Mrs. Lorin **438**
Honeybees, wild 521–522
Hook of Holland, Netherlands 558
Hops: Czechoslovakia 171, 188
Horses: Afghanistan 39, **46,** cover ill.; Lipizzaner 743, **745**
Horticulture *see* Flower breeding
Horton, Janet **389**

Hot Springs, Tex. 121, 122
Hôtel de Lauzun, Paris **700,** 710–711
Hôtel de Ville, Paris 710–711
Hôtel Lambert, Paris 691, 711, **712–713**
Houston, Tex.: Highways 206
Houtzager, Marianne 563, 564
Hradčany (castle), Prague 161, 163
Hubbard, Gardiner Greene 584
Hubbard Medal: "National Geographic Society Honors Air Pioneer Juan Trippe." Apr., pp. 584–586
First awarded 584
Number of times awarded 584
Photographs of **584, 585**
Recipients 584
Hunchback of Notre Dame 688
Hungarian revolt (1956) 171
Hungary 169, 170, 171
Hurricane Beulah 95, 102
Hurricane Hole, St. John **66–67**
Hurricane Island, Maine 829–830
Hus, Jan 155, 158
Hutter, Wolfgang: Portrait by **751**
Hydraulics Laboratory, Delft 537; Model 539, **540**
Hydrofoil, Russian-built 170
Hýř, Jirí **171**

I

Ice Patrol *see* International Ice Patrol
Icebergs **576,** 656, **657;** "Tracking Danger With the Ice Patrol." By William S. Ellis. June, pp. 780–793
Disintegration 780, 783, 785, 787, 792; "growlers" 789, 791
Indestructibility 792
Number calved 787
Season 783, 786
Ship collisions with 783, 787, 791, 792–793, **792–793**
Size 786, 787, 792; Submarine **789**
Speed 782, 787
Icebreakers: Finland 590, 593, **608**
Icequakes 657
IJmuiden, Netherlands: Steelworks **551**
IJssel Meer, Netherlands 533, **538,** 561, 571
"Île de la Cité, Birthplace of Paris." By Kenneth MacLeish. May, pp. 680–719
Île St. Louis *see* St. Louis, Île
Iliad (Homer) 13, 15, 18
Illiniza (mountain), Ecuador **298**
Illinois: Highways 210
Imam Juma of Teheran **306,** 318
Imi, Tizi n' Aït, High Atlas Mountains 870, **872,** 873
Imilchil, Morocco **851,** 856
Immonen, Aino **606**
"Immortal" (Persian warrior) **36**
Imperial Guards: Iran 315, **319;** Deputy Commander **306–307**
"In the Footsteps of Alexander the Great." By Helen and Frank Schreider. Jan., pp. 1–65
Inari, Lake, Finland **624–625**
Incas: Ecuador 263, 264
İncirlik Air Base, Turkey 18, 22
"Index to first 59 years of *National Geographics* now available." May, p. 738
India 46, 51, 56; Army, ancient 56, **58–59**
Indians of North America 109, 111, 112, 115, 118, **120–121,** 124, 126–127, 370, 373, 644, 646, 650
Indians of South America: Amazon **845;** "Ecuador: Low and Lofty Land Astride the Equator." By Loren McIntyre. Feb., pp. 259–298; Tukuna 295A, **295A**
Indus River, Pakistan 51, 56, 58; Bridge of boats 56, **57**
Insects: "Nature's Year in Pleasant Valley." By Paul A. Zahl. Apr., pp. 488–525
Crop damage by 505
Genetic variations 511
Instinctive behavior 509
Life cycles 505, 508, 517, 520
Life systems 512
Winter survival 520–522
see also individual types
International Congress of Jurists: Schönbrunn Palace **773**
International Court of Justice, The Hague 567
International Dateline Hotel, Tonga 327, 329, **348**
International Ice Patrol: "Tracking Danger With the Ice Patrol." By William S. Ellis. June, pp. 780–793
Aircraft 780, **781, 782,** 783, 785, 786, 789, 791–792
Area served 783, 786–787, 790, 792, 793; Map 785
Broadcasts 780, 790, 791, 793
Cost 783
Discomforts and hazards 783, 786, 792, 793
Drift-pattern studies 782, 783, 785, 786–787, 792
Dye-marking 780, **782,** 783, 789, 791–792
Headquarters 783, 789–790, **791**
History 783, 792
Iceberg detection 783, 789–791; Automated 792
Nations paying for 783, 785
Oceanographic experiments **787,** 792
Oceanographic vessel **782,** 783, **786–787,** 787, **788,** 789, 791–792, 793
International Paper Company, Mobile **386–387,** 388, 392
International Trade Fair, Brno 163, **172–173**
Interstate Highway System:
"New Map Charts an Expanding Nation." Feb., pp. 220–221; *see* outline, *below*
"Our Growing Interstate Highway System." By Robert Paul Jordan. Feb., pp. 195–219
Accidents 205–206
Beautification 209
Benefits 198; Nature 215, 218; Urban planning 199, 208–209
Bridges 214, **218–219,** 220–221
Conception and enactment 198, 200
Date of completion 200
Fatality rate 198
Financing and cost 200, 202
Interchanges **195,** 210, **212–213**
Map 216–217
Mileage 194, 195, 200; Completed 201, 220; Percent of public roads 201; Pre-existing structures 200–201; Under construction 220
Numbering 206, 216
Rest and recreation areas 197, 199, 218
Right of way acreage 198; Eminent domain 203, 209–210
Safety devices and measures 197, 205, 207–208, **207, 210**
"Signing" 207, **216;** Breakaway 207, **210;** Electronic 207
Television computers 206, **211**
Tunnels 202, **214**
Inverewe, Scotland: Gardens 431–432
Inverness, Scotland 400–401, **402–403,** 404; Highland Games **400–401**
Iowa: Highways 205
Iran:
"Coronations a World Apart." By Frederick G. Vosburgh. Mar., p. 299
"In the Footsteps of Alexander the Great." By Helen and Frank Schreider. Jan., pp. 1–65
Agriculture 63
Desert **2–3, 60–61,** 64
Hot springs **40**
Irrigation: Dam **63;** Well **62**
Language 63
Mountains **32–33, 36–37**
Oil industry 28, **32**
Population 39
Shah 39
"Iran's Shah Crowns Himself and His Empress." By Franc Shor. Mar., pp. 301–321
Army 308, 318, **319**

Coronation **300–301, 306–314**
Education 311–312, 319
Flag **299, 304**
History 299
Industry 312
Land reform 305–306, 308, 313
Population 313; Density 305
State treasures 301, **307,** 318
Women's rights 299, 308, 310–311, 314
Iraq 22; Desert mirage **30–31**
Irons, William 30
Irrigation: High Atlas Mountains **858–859, 868–869**; India-Pakistan 56; Iran **62, 63**; Turkey 15
Islam: Pakistan 49, 54
Island Fancy (home), St. John 68
Islands *see* Mexcaltitán; Paris; Tonga
Islands, man-made: Netherlands 541, **545**
Israel Creek, Md. **504–505**
Issus, Plain of, Turkey **22–23**; Battle 17, 18, 22, mosaic **23**

J

Jablonec nad Nisou, Czechoslovakia 182
Jáchymov, Czechoslovakia 185
Jackson, Henry M. 651
Jackson Hole Preserve, Inc. 69
Jackson Laboratory, Bar Harbor **820,** 832, 834
Jager, David de 564
Janáček, Leoš 181
Janské Lázně, Czechoslovakia 187
Japanese teahouse: Bellingrath Gardens **369,** 397
Jarai tribe: Viet Nam 475, 477
Javelina (wild hog) 108, **118**
"Jax" mice **820,** 834
Jeh tribe: "Viet Nam's Montagnards." By Howard Sochurek. Apr., pp. 443–487
Beliefs: Death 448, 452, 464; Evil spirits 452, 453, 456–457; Superstitions 448, 456
Birth ceremony 461–462
Character of 450, 452, 461
Communal house 452, **458–459**
Customs and social life 456, 457, **458–459,** 461–464
Dress 450, **451,** 456, **459, 460**
Farming 460; Rice crops **448–449,** 456, 460–461
Food 452, **453,** 456
Language, written 447–448, 459, 460
Religion 462; Sacrifice 457
Tools **450, 461**
Tribal region (Dak Poko) **445**
Viet Cong strikes 448, 450, 455, 456, 458, 468, 470
Villages 447, **454–455,** 460; Fortifications and defense 450, 451, **454–455,** 468; Map 447; Relocating 454, 461, 462, 463; Security for *see* Dak Pek; Underground shelters (bunkers) **454–455, 456**; Water supply **453**
Jhelum River, Kashmir 56, 58; Battle 56, **58–59**
Jiménez-Moreno, Dr. Wigberto 880, 888
Jipijapa, Ecuador 289
Jívaro Indians: Ecuador **293,** 296
Joe-pye weed **512–513**
Joensuu, Finland 612
Johansen, Dr. Kjell 237
Johnson, Dr. C. Scott **230,** 245
Johnson, Lyndon B. 88, 208, **220,** 323, 325, **528**
Johnson, Mrs. Lyndon B. **112,** 124
Jomppanen, Juhani, and family 627, 629
Jones, James **711,** 717
Jones, Mattie L. **374**
Joran, Jiří **162**
Jordan, Robert Paul: "Our Growing Interstate Highway System." Feb., pp. 195–219
José Alberto (schooner) 574, 576, 578, 579A, 580, 581, 582
Josefsplatz, Vienna 743
"Jubilee": Mobile Bay 394–395
Judd, Frank A. **108**
Juhannus (Midsummer Festival): Finland 627; Bonfires 614–615, 627
Juliana, Queen (Netherlands) 546, **567**
Junior Miss pageant: Mobile, Ala. 375; Contestants **396**
Juniper Canyon, Chisos Mountains 127

K

Ka Phoi (Montagnard chief) **483**
Kabul, Afghanistan 36
Kadlec, Zdeněk **190**
Kafirs *see* Kalash Kafirs
Kahlenberg (peak), Vienna 743, 749, **778**
Kaipianen, Birger **598**
Kaiser, Anna 779
Kaivopuisto Park, Helsinki **594–595**
Kajander, Niilo 606
Kalash Kafirs 48, 49, 52–55, **52–55**
Kallavesi (lake), Finland **610–611,** 612
kalung (carving tool) **461**
Kamdesh, Afghanistan 49, 53
Kanam (evil spirits) 453, 457
Kansas: Highways 205
Kantor, Jerome 723–724
Kao (island), Tonga **356,** 365
Kapok: Ecuador 283, **289**
Karelia region, U.S.S.R. 602, 607, 610–611
Karlovy Vary (Karlsbad), Czechoslovakia **184–185,** 187–188; Glassworks **186**
Karlštejn (castle), Czechoslovakia **175,** 190
Kaş, Turkey 15
Kaunissaari (Beautiful Island), Finland 603, 606
kayh (supernatural power) 462
Kekkonen, Urho, President (Finland) 597–598, **597,** 601, 613
Keller, Hannes 145
Kennebunk Beach, Maine **800–801**
Kennebunkport, Maine 804
Kennecott Copper Corporation 654–655, 667
Kenney, Nathaniel T. **648**; "Big Bend: Jewel in the Texas Desert." Jan., pp. 104–133; "New National Park Proposed: The Spectacular North Cascades." May, pp. 642–667; "Sharks: Wolves of the Sea." Feb., pp. 222–257
Kent, Duchess of **325, 335,** 337
Kent, Duke of **325,** 337
Kerk, J. van de 531, 537
Keukenhof, Netherlands: Flower gardens 560, 561, 563
Kežmarok, Czechoslovakia 191
Khawak Pass, Hindu Kush 37–39, **44–45**; Altitude 33, 38
Khrushchev, Nikita 613, 766
Kilmartin, Scotland: Cemetery **414,** 418
Kingussie, Scotland 415
Kiowa Indians 112
Kittery, Maine 801
Kitti, Jouni **628**
Klatzo, Dr. Igor 237
Klicmann, Josef 743
klompen (wooden shoes) **537,** 561, **563,** 564
Knight's Hall, The Hague **567**
Knob Hill, Wash. 672, 673
Kocabaş (river), Turkey 15
Kofa Game Range, Ariz. 122
Kogler, Aibert 243
Kolovai, Tonga: Community house **354**; Fruit bats 329, **338–339**
Kolpack, Carl **203,** 210
Komárno, Czechoslovakia 170
König, Franz, Cardinal 774
Kontum, South Viet Nam: Leprosarium 464, **464, 465,** 470, 472
Košice, Czechoslovakia 176, 178; Nové Město **192**; Steelworks **152–153, 176**
Kotka, Finland 603, 606
Krkonoše Mountains, Czechoslovakia 164
Krong Kno River, Viet Nam **468, 474–475,** 477, 479
Kuhne, Marie Peary 807
Kukkolan Rapids, Tornio River, Finland **616–617**
Kunar River, Afghanistan 49, **50**
Kuopio, Finland 612; Winter Games **621**
Kupka, Karl 760–761
Kurds: Iran **214**; Iraq 22
Kutná Hora, Czechoslovakia 163
Kuwait: Oil industry 28

L

La (Jeh chief) 456, **459**
Labrador Current 783, 785, 786, 791
La Colombe (cafe), Paris **698–699**
Lac Van Ryn (tulip) 564
Ladd Memorial Stadium, Mobile 370
Lady of the Lake (ferry) **647**
La Grande Mademoiselle 711
lakalaka (Tongan dance) 336
Lake, Charles W., Jr. **529**
Laman, Van **242**
Lampblack: Iceberg control 792
Lamppost gardens, Camden **817**
Land reclamation: Netherlands *see* Delta Flood Control Project
Lane, David L. 79, **87**
Langan, Joseph N. **379**
Langi, Afe 358
Laos: Hill tribes 445
Lapland, Finnish 590, 593, 611, **622–623,** 623–624, **624–625;** Winter Games **620**
Lapp language 629
Lappalainen, Vilho 612
Lapps **591,** 624, **626–629, 844**
Largacha, Maruja 289
Larsen, Jean 83
Lassen Peak (volcano), Calif. 649
Lau Group (islands), Fiji 354
Laughton, Charles 395
Launois, John (*Black Star*), photographer: "Vienna, City of Song." June, pp. 739–779
Lauzun, Duke of 710–711
Lawarai Pass, Pakistan 55
Lawick, Hugo, Baron van **632, 637;** photographer: "Tool-using Bird: The Egyptian Vulture." May, pp. 631–641
Lawick, Hugo van **637**
Lawick, Michael van 633
Lawick-Goodall, Jane, Baroness van **632, 637;** "Tool-using Bird: The Egyptian Vulture." May, pp. 631–641
Lead crystal 182
Leakey, Dr. Louis S. B. 846, **848,** 849
Leapfrog, Berber girls playing **866–867,** cover ill.
Lebanon 24–25; Resort **24–25;** *see also* Tyre
Lechuguilla (plant) 104–105, **116–117**
Lee, Mr. and Mrs. H. Rex **331,** 336
Lee, Gen. Robert E. 491
Legg, Simon **434**
Lema, Marisol **259**
Le Marché aux Fleurs, Paris **704**
Lemmenjoki (river), Finland 627, 629
Lemon sharks **226–227, 230, 231, 233,** 238, 256–257
Lenin, Nikolay: Portrait of **49**
Leninabad, U.S.S.R. 41
Leningrad Philharmonic 180–181
Leninova Street, Košice 178
Leonard, Lt. Comdr. John D., Jr. 802–803
Leopard sharks **232, 245**
Leopoldsberg (peak), Vienna **779**
Leprosarium: Kontum, South Viet Nam 464, **464, 465,** 472
Lerner Marine Laboratory: Shark studies **230, 250–251,** 256
Le Sueur, Eustache 711; Painting by **712–713**
Lidice, Czechoslovakia 183, 185; Mass grave **168**
Lifuka (island), Tonga 360–361
Lily pad, Giant **295A**
Limoncocha, Ecuador 296
Limones, Ecuador 266, 293
Lincoln, Abraham 812; Statue of **134**
Lincoln Highway (U.S. 30) 205, **216–217**
Lindbergh, Anne 584
Lindbergh, Charles 584, **586**
Linden, American **836–837**
Linehan, Edward J.: "Czechoslovakia: The Dream and the Reality." Feb., pp. 151–193
Link, Edwin A. 139, 141, 142, **143,** 145, 226
Linka, Vladimír 182
Lipizzaner horses 743, **745**
Lisma, Finland 591, **622–623,** 629
Lisse, Netherlands: Gardens 561
Literacy Corps: Iran 311–312, 319
Little, Dr. C. C. 834
Little Deer Isle, Maine **818–819**
Littlehales, Bates, photographer: "A Taxi for the Deep Frontier." Jan., pp. 139–150
Live oaks: Bellingrath Gardens **396**
Livermore, John S. 674
Lobsters: Maine **801, 822–823;** Traps **827**
Loch Carron, Scotland **418–419,** 420
Loch Maree, Scotland 423, 425, 431
Loch Ness, Scotland 400, **410, 434**
Loch Ness Phenomena Investigation Bureau 434
Loch Oich, Scotland **410**
Loch Shiel, Scotland 419
Lochinver, Scotland 433
Log rafting: Finland **608–609**
Lompoc Valley, Calif.: "The Flower Seed Growers: Gardening's Color Merchants." By Robert de Roos. May, pp. 720–738
Loncar, Peter N. 674, 676, 677, 679
"The Lonely Dorymen" (television announcement). Apr., pp. 579A–579B
Long Beach, Beirut **24–25**
Long Island, Maine **826–827,** 829
Longfellow, Henry Wadsworth **805,** 807–809
Lorestani, A. Badrai, Brig. Gen. **306, 307**
Los Angeles, Calif.: Highways **195, 206**
Lost Mine Peak, Chisos Mountains 107, 109
Louis, St. 701, 703, 707
Louisiana, French 378
Loveland Pass, Colorado Rockies 201, 202
Lovell, Tom, artist: "In the Footsteps of Alexander the Great." Jan., pp. 1–65
Lubec, Maine 840, 842
Lubenec State Farm, Czechoslovakia 188; Director **171**
Luhačovice, Czechoslovakia 187
Luisa Ribau (ship) **575, 580–581**
Luns, Joseph 571
Lutèce (Lutetia), Gaul 683, 687
Luther, Martin 155, 158
Lutheran Cathedral, Helsinki **589, 594**
Lynn Creek district, Nev. 674, 677, 679

M

M47 tanks **319**
Maastricht, Netherlands: Carnival **533**
Mabila Indians 370, 373
MacAlpin, Kenneth, King (Gaelic Alba) 414, 418,
Macará River, Ecuador-Peru 283
Macbeth 400; Tartan, cover ill.
McBeth, J. D. 679
McCully, Ethel Walbridge 68
MacDonald clan 415, 416, 425
Macedonia 8, 13, 32; Headdress, women's **4–5;** Kings *see* Alexander the Great; Philip II
Machálek, Miroslav 188
Machete (*mak*) **451, 461**
Machias River, Maine **820–821**
MacInnis, Dr. Joseph 140–141, 144–145, 146, **147,** 148, 150
McIntyre, Loren **275;** "Ecuador: Low and Lofty Land Astride the Equator." Feb., pp. 259–298
MacKenzie, Sir Alexander 427
MacKenzie, Billy 431
MacKenzie, Kenneth 427
MacKenzie, Kenneth and Isabel **422,** 430
MacKenzie, Murdo **420**
MacKenzie, Osgood 431
MacKenzie clan 420, 425, 427, 432
Mackintosh, Lachlan 409
Mackintosh clan 409
McKnew, Dr. Thomas W. **529**
MacLeish, Kenneth **138, 141, 146;** "The Highlands, Stronghold of Scottish Gaeldom." Mar., pp. 398–435; "Île de la Cité, Birthplace of Paris." May, pp. 680–719; "A Taxi

for the Deep Frontier." Jan., pp. 139–150
MacLennan, D. W. 406–407
MacLeod, John **239**
MacMakin, Bob 36, 37, **45**
MacMakin, Mary 36, 37
MacMillan, Donald B. 833
McNeely, Burton 224
MacNicol tartan **406**
Macpherson, Eòin **412**
Macpherson, Jamie 412, 415
Macpherson, Robert 415
Macpherson clan 412, 415
McQuiston, F. W. 674
MacRae, J. D. H. **421**
MacRae clan 420, 425
Madden, Robert W., photographer: "Mobile, Alabama's City in Motion." Mar., pp. 368–397
Maelrubha (Irish monk) 422, 423
Magic Mountain, Wash. **661**
Maine: "Character Marks the Coast of Maine." By John Scofield. June, pp. 798–843
Blueberry industry **818–819**
Conservation 806
Fishing industry 806, 814–815, **834–835,** 835, 839–840; Lobsters 823, 826–827, 830
Folklore 832
Granite industry 825, 829
Islands 802, 824–832
Lumber industry **820–821**
Nickname 800, 802
Nuclear power plant, proposed 819
Pollution problem 806
Population 802
Principal city *see* Portland
Sales tax 814
Shipbuilding 801, **808–809,** 817
Statehood 802
Maine Maritime Academy, Castine 824, **832–833**
Maine sardines *see* Herring industry
Maine Sea Coast Mission 835
Majlis 306, 308, 310, 320
maka-feke (octopus lure) 353, **359**
Mako (shark) **232–233,** 238
Malá Strana (Little Quarter), Prague 161
Malacca, Malaysia: Children **137**
Mallaig, Scotland: Boats 419, **424**
Malozemoff, Plato 674
Man-in-Sea project: "A Taxi for the Deep Frontier." By Kenneth MacLeish. Jan., pp. 139–150
Manaus, Brazil 295A, **295A**
Mangla Dam, Kashmir 56
Mangrove jungle: Ecuador **286–287**
Mannerheim, Marshal Carl Gustaf 612, 616
Mannerheimintie street, Helsinki **600–601**
Man's Conquest of Space (Shelton) 844, 846, **847,** 848–849
Mänttä, Finland 616, 619
Mänty, Martta **626**
Map articles: "New Map Charts an Expanding Nation." Feb., pp. 220–221; "Two Faces of the Atlantic." June, pp. 794–797
Maple, Silver: Flower 492, **492**
Maps:
Afghanistan 12
Africa *see* Morocco
Africa-Europe-Asia: Range of the Egyptian vulture 633
Alabama: Mobile 379; Tennessee-Tombigbee Waterway, proposed 377
Alexander the Great, Empire of 10–12
An Lac area, Viet Nam, locating Mnong villages 469
Arctic region: Iceberg drift 785
Asia, Southeast: Montagnard ethnic groups 447
Asia Minor 10–11
Atlantic Ocean: *Atlantic Ocean* and *Atlantic Ocean Floor,* June supplement; Benjamin Franklin's chart of the Gulf Stream 794
Atlantic Ocean, North: Herring migration route 794; Iceberg drift 785; Portuguese codfishing fleet's route 576
Atlas Mountains *see* Morocco
Austria 739; Vienna 750
Big Bend National Park, Tex. 113
Caribbean region *see* Virgin Islands
Cascade Range, Canada-U.S. *see* North Cascades
Cité, Île de la, Paris 689–690
Comanche War Trail, Texas-Mexico 113
Czechoslovakia 164–165
Dak Pek area, Viet Nam, locating Jeh villages 447
Delta Flood Control Project, Netherlands 536, 539
Down East (Maine coast) 802–803
Ecuador 763
Europe *see* Czechoslovakia; Finland; Netherlands; Paris; Scottish Highlands; Vienna
Finland 596
Flowers: Countries of origin 726–728
France *see* Paris
Friendly Islands *see* Tonga
Galapagos Islands 263
Glacier Peak Wilderness, Wash. 651
Gold mines, U.S. 672
Greenland 785
Gulf Coast, U.S. 377; Mobile, Ala. 379
Gulf Stream (Franklin's map) 794
Hellenic League 11
Highlands of Scotland 408, 409
Highways: The Interstate Highway System, U. S. 216–217; *The United States,* Feb. supplement
International Ice Patrol area 785
Iran 11–12, 302
Iraq 11
Macedonia 11
Maine coast 802–803
Mexico, locating Mexcaltitán 883
Mobile, Ala. 379
Montagnard villages, Viet Nam 447, 469
Morocco: High Atlas Mountains mule trek 853
National parks: Big Bend, Tex. 113; Proposed *see* North Cascades
Netherlands 536; Shifting lands since 1st century A.D. 539
Newfoundland: Ice Patrol 785
North Cascades National Park, proposed, Wash. 651
Pacific islands *see* Tonga
Pakistan 12
Paris: Islands of Paris 689–691
St. Croix *see* Virgin Islands
St. John *see* Virgin Islands
St. Louis, Île, Paris 690–691
St. Thomas *see* Virgin Islands
Scottish Highlands 408, 409
South America *see* Ecuador
South Viet Nam 447, 469
Teheran, Iran: Coronation route 302
Tennessee-Tombigbee Waterway, proposed, U.S. 377
Texas *see* Big Bend National Park
Tonga Islands, South Pacific 328
Tortola *see* Virgin Islands
Turkey 10–11
United States: Gold mines 672; The Interstate Highway System 216–217; Southeastern 377; *The United States,* Feb. supplement
Vienna, Austria 750
Viet Nam 447
Virgin Islands 72–73
Washington: North Cascades 651
Wilderness area, U.S. *see* North Cascades
The World of Flowers 726–728
Mapuaho, Manu 367, **367**
Maracanda (Samarkand, Uzbek S.S.R.) 48
Marathon, Tex. 109
Marché aux Fleurs, Paris **704,** 718
Marcovič, Ján 178
Marden, Luis 325, **331,** 336–338; "The Friendly Isles of Tonga." Mar., pp. 345–367
Mardi Gras: Mobile, Ala. **369,** 374, **374–375,** 376, 378
Marek, Bruno 753–754

Maria Theresa, Empress (Austria) 766, 771
Mariánské Lázně (Marienbad), Czechoslovakia 187
Marie Antoinette, Queen (France) 704, **717,** 766, 771
Marie Louise, Sister 464, 472
Marié, South Viet Nam **486**
Mariehamn, Åland (islands), Finland 619; Maritime museum 621
Marigold, White: Reward for producing 723–724, 732
Marigolds 724, **726, 727, 729–733;** Pollen **731**
Marimekko designs 601–602
Marin, John 822
Marine biology: "Sharks: Wolves of the Sea." Feb., pp. 222–257
Marineland, Fla. 244, 256–257
Mariner, Will 328, 361–362, 363
Mariner's Cave, Nuapapu Island 362, **362–363,** 364
Mariscal Canyon, Rio Grande **112,** 122, 124
Marken, Netherlands 561, 564
Marlin fishing **392,** 397
Marques Rosa, Joaquim 574, 576, **577,** 578, 580–581, 582
Marrakech, Morocco 850, 852, 857, 861, 875
Martinů, Bohuslav 181
Maryland: Highway **207;** "Nature's Year in Pleasant Valley." By Paul A. Zahl. Apr., pp. 488–525
Masai Amboseli Game Reserve, Kenya 636
Masai tribesmen 633, 640
Massachusetts: Governor, Colonial **812**
Mata'aho, Halaevalu, Queen (Tonga) 336; Coronation **324, 330,** 339
Matheson, Katrine 432–433
Mathias, Dr. Mildred E. 726
Matinicus Rock, Maine 830, 832, 834
Matthews, Samuel W.: "Nevada's Mountain of Invisible Gold." May, pp. 668–679
Mattila, Eino **591**
Maumenee, Radcliff 392
May Day celebration: Czechoslovakia 160–161; Finland **592–595**
Mayapple **495,** 496–497
Mayo, Edward 804, 806
Mazar-i-Sharif, Afghanistan 39; *buz kashi* game 39, 41, **46,** cover ill.; Mosque **47**
Medical research: Sharks 231, 237
Mediterranean resort: Lebanon **24–25**
Mednansky, Baroness 190–192
Meisch, M. 688, 692
Melanesia 327, 329
Melosira borrceii (sea plant) **796**
Melvaig, Scotland 427
Memorial Hall, Vinalhaven **828–829**
Memorial tribute: "Robert V. Fleming, 1890-1967." By Melville Bell Grosvenor. Apr., pp. 526–529
Mendel, Gregor Johann 163
Merwede River, Netherlands **540**
Mesa, Reinaldo 293
Mestizos: Ecuador 263, 266, 267
Metis Shoal, Tonga 328, **366**
Mexcaltitán, Mexico: "Mexico's Little Venice." By W. E. Garrett. June, pp. 876–888
  Air views **877–879, 882**
  Compared to Aztec capital 880, 883, 888
  Customs 886, 887
  Dry season 876, **880, 884–885,** 888
  Education 885
  Fishing 876, 882, 883, **886–887,** 888; Cooperative building **876–877**
  Homes 876, 884, 886; Stove **886**
  Location 882, 883; Map 883
  Plaza 882, **884–885**
  Public health 886; Hospital **879**
  Recreation 882, 885; Basketball court **879**
  Rent-a-canoe fleet 882, 884
Mexican jay 108
"Mexico's Little Venice." By W. E. Garrett. June, pp. 876–888
Mgouna tribesman: Morocco 869–871
Miami Seaquarium: Sharks **231**
Mice, laboratory **820,** 832, 834–835
Micmac Indian **818**
Microwave radiometer 789
Mid-Atlantic Ridge 797
Midas, King 17
Middle East: Oil industry 28
Midsummer Eve celebrations: Finland 614–615, 627
Millay, Edna St. Vincent 824
Mims, Lambert C. **378**
Mining, gold: "Nevada's Mountain of Invisible Gold." By Samuel W. Matthews. May, pp. 668–679
Mirage **30–31**
Mirror Hall, Clementinum, Prague **162**
Mirza, Mohammad 37–38
Mississippi River, U. S. 373, 374
Mitchell, Carleton **70, 87;** "Our Virgin Islands, 50 Years Under the Flag." Jan., pp. 67–103
Mitosis 492, 497, **499**
Mix-up Peak, Wash.: Climber **656**
Mladá Boleslav, Czechoslovakia: Automobile plant **190**
Mnong tribe: "Viet Nam's Montagnards." By Howard Sochurek. Apr., pp. 443–487
  Beliefs: Myths 480; Superstitions 480–481
  Dress 474, **478**
  Farming 473; Crops 478
  Fishing **481,** cover ill.
  Food 477
  Longhouse **478–479**
  Loyalties 469, 470
  Medicine, tribal 480–481, 482, **483**
  Religion 478, 481–482; Ceremonies 482, **483, 484;** Sacrifice 481–482, **485**
  Security for *see* An Lac
  Sorcerers 480–481, 482, **484**
  Teeth 473, **484**
  Tribal region (An Lac) 472
  Villages **468;** Map 469
  Weaving crafts 473–474, **476, 478**
"Mobile, Alabama's City in Motion." By William Graves. Mar., pp. 368–397
  Air view **368–369**
  Azalea Trail 370, **384–385,** 397; Bellingrath Gardens 395, **396,** 397
  Colleges 383, 384–385, **385**
  Community services 388, **389**
  Fishing industry **369,** 392, **394–395,** 395
  Flags 377, 378
  History 373–374, 376, 377, 378, 380, **380,** 381, 382, 387
  Homes, old 370, 378, **384–385**
  Industries 370, 378, 384, **386–387,** 388, 392 *see also* Fishing, *above*
  Map 379
  Mardi Gras **369,** 374, **374–375,** 376, 378
  Municipal Auditorium **368–369, 374–375;** Opera **382–383,** 383
  Name origin 370, 373
  Population 379, 383
  Port **369,** 370, **376–377,** 378, 379, 387
  Race relations 383, 384–385, 388
  Sports events 370, **390–391, 393,** 397
  Streets 376, 378
Mobile Bay, Ala. **368,** 370, **376–377,** 378, **380,** 392; "Jubilee" 394–395; Map 379; Oyster tongers **368,** 392, 394–395; Yacht race **390–391**
Mobile Bay, Battle of 378, 380, **380,** 381–382
Mobile Opera Guild: Director **383**
Mobile Pulley and Machine Works **387**
Mobile Reserve Fleet 372–373, 392
Mobile River, Ala. **368–369,** 370, **376–377;** Delta wildlife 370, 372, 397
Mobley, George F., photographer: "Finland: Plucky Neighbor of Soviet Russia." May, pp. 587–629
Mohammad Reza Pahlavi, Shah of Iran 39; "Coronations a World Apart." By Frederick G. Vosburgh. Mar., p. 299; "Iran's Shah Crowns Himself

and His Empress." By Franc Shor. Mar., pp. 301–321
Mohammad Reza Shah Pahlavi Dam, Dez River, Iran **63**
Moldau River *see* Vltava
Monarchies, number of 299
Monasteries and convents: Czechoslovakia 163–164
Mondry, John 725, 731
"Money trees": Scotland **420,** 425
Monhegan Island, Maine 823
Mon-Khmer people 447, 461
Monsoon rains: Viet Nam 450, 460, 480
Montagnards (people): "Viet Nam's Montagnards." By Howard Sochurek. Apr., pp. 443–487
Autonomy desirable to 464, 485, 487
Bamboo, uses of 452, **452, 457, 460, 461,** 473, 482, **484, 485**
Baskets **449, 461, 473,** 473–474, **476–477**
Coffins, log **466, 467**
Combat forces *see* CIDG
Education 475, 479, 487
Food **453,** 467
Government representation 477
Leper colony 464, **464, 465,** 472
Loyalties 445, 469
Map locating ethnic groups 447
Medical care 449, 462–464, 467, 472, 479, 487 *see also* Leper colony, *above*
Myths 487
Number of tribes 445, 447
Proposed improvements for 477, 485
Rebellion (1964) 477, 485
Relationship with Vietnamese (lowlanders) 447, 466, 477, 485, 487
"strikers" *see* CIDG
Tools **450, 451, 461,** 473
U. S. aid to 467, 485
Victimized by war 445, 464, 466, 487
Viet Cong strikes 450, 469
Villages **446,** 447, **452,** 470; Fortifications and defense **446, 452;** Relocation 448, 449
Welfare programs 462–463, 464, 472, 475, 477, 479, 485, 487
World War II 443–444
see also Bahnar; Jarai; Jeh; Mnong
Montauk Point, N. Y.: Sharks **246–247**
Montecristi, Ecuador 289
Montgomery, Gen. Bernard L. 20
Moravia (region), Czechoslovakia 151, 163, 164–165, 167, 169, 173; Homes **193;** Steel mill **177**
Morgan, J. P. 817
Morocco: "Trek by Mule Among Morocco's Berbers." By Victor Englebert. June, pp. 850–875
Celebration **856–857**
Flag **852**
French rule 852, 853, 873, 875
Morrhad, Ait (tribe): Morocco **854–855,** 864, 865
Morris, Lee 76
Mosaics: Battle of Issus **23;** Pella, Macedonia 6, **8–9,** 53
Moser Glassworks, Karlovy Vary **186**
Moslems 36, 44; Pakistan 53, 54; *see also* Berbers
Mosques: Afghanistan **47;** Cone dwellings **20;** Uzbek S. S. R. 47, **48**
Moths **517,** 520
Moulton, Dr. J. E. 348–349
Mount Desert Island, Maine 832
Mountain people *see* Montagnards
Mountains *see* Andes; High Atlas; North Cascades
Moy Hall, Scotland 409
Mozart, Wolfgang Amadeus 181, 751, 765, 766, 775
Mravinskiy, Yevgeniy 180–181
Mririda n' Aït Attik: Quoted 861
Mules: "Trek by Mule Among Morocco's Berbers." By Victor Englebert. June, pp. 850–875
Mullady, John 112
Muminova, Maja 43, 44
Munich Pact (1938) 183
Murray, Comdr. John E. 792
Mushrooms 500; Morel **494–495,** 500–501
"My Lost Youth" (Longfellow): Quoted 807
Myths, Order of (OOM): Mardi Gras 376, 378; Ball **374–375**

N

Na Přikopě (street), Prague 158
Napo River, Ecuador **294–295,** 296
Napoleon 167, 766, 772
Napoleon Room, Schönbrunn Palace **772**
Nasturtiums **725, 726,** 731
Natal Province, South Africa: Sharks 250–251
National Aeronautics and Space Administration (NASA) 102; Satellite tracking station 270, **298**
National Cancer Institute: Shark studies 231
National Defense Education Act 137
National Folklore Institute, Quito: Director **271**
National Foreign Trade Bank: Mexico 120
National forests: Legal uses 650, 654, 667
National Geographic Index, 1888-1946 **738;** Announcement 738
National Geographic Magazine (NGM):
Editor *see* Vosburgh, Frederick G.
Editor, Associate *see* Shor, Franc
Editor-in-Chief *see* Grosvenor, Dr. Melville Bell
Foreign Editorial staff: Chief: Marden, Luis 299, 325, **331,** 337
Indexes, Cumulative **738;** "Index to first 59 years of *National Geographics* now available." May, p. 738
Photographers: Blair, James 656, 657; Parks, Winfield **137**
Printer: R. R. Donnelley & Sons Co.: President **529**
Wyeth paintings 823
National Geographic Society (NGS):
Atlas maps: Final map in World Atlas Series 794
Awards presented: Hubbard Medal to Juan Trippe 584, **584, 585,** 586
Board of Trustees:
Advisory Chairman: McKnew, Thomas W. **529**
Chairman *see* Grosvenor, Dr. Melville Bell
Members: Warren, Earl 584, **584,** 586; *see also* Trippe, Juan T., for article
Members, former: Arnold, Henry H. 584; Byrd, Richard E. 584; *see also* Fleming, Robert V., for article
Expansion of activities 526, 529
Filmstrips: "The World in Geographic Filmstrips." By Melvin M. Payne. Jan., pp. 134–137
Finance Committee: Chairman *see* Fleming, Robert V.
First Hubbard Medal recipient 584
Founders: Hubbard, Gardiner Greene 584
Grants: African wildlife photography 631, 633, 636; *Explorer II* 849
Headquarters: Dedication 323, 325, **528;** Explorers Hall 584
History: "Robert V. Fleming, 1890-1967." By Melville Bell Grosvenor. Apr., pp. 526–529
Illustrations Library, world's largest **136**
Medals: Hubbard Medal 584, **584, 585**
Members, number of 526
Metalworking shop 137
President *see* Payne, Dr. Melvin M.
Presidents, former: Grosvenor, Melville Bell 299; Hub-

bard, Gardiner Greene 584
Publications: *National Geographic* indexes 738, **738**; *see also* Special Publications
Recordings accompanying filmstrips 135–137
School Service: Chief (Ralph Gray) **136,** 137
Special Publications: "Announcing Four New Geographic Books: Australia, Space Exploration, Vanishing Peoples, African Animals." By Gilbert M. Grosvenor. June, pp. 844–849; Ordering information 846
Television program announcements: "Amazon." Feb., pp. 295A–295B; "The Lonely Dorymen." Apr., pp. 579A–579B
Treasurer *see* Fleming, Robert V.
Vice presidents *see* Fleming, Robert V.; Grosvenor, Gilbert M.
"National Geographic Society Honors Air Pioneer Juan Trippe." Apr., pp. 584–586
National Institute of Anthropology and History, Mexico City 888
National Institutes of Health: Shark studies 231, 237
National Museum, Prague 158
National Park Service 644, 646; Director 650
National Parks, U. S.: First proposed aerial trams 644, 660; *see also* Big Bend; North Cascades (proposed)
National Science Foundation 88
Natural-gas well: Slochteren **571**
Natural Science Museum, Cleveland **215,** 218
Nature Conservancy 806
"Nature's Year in Pleasant Valley." By Paul A. Zahl. Apr., pp. 488–525
Nazis: Czechoslovakia 154, 169, 174, 183, 185; Vienna 744
Nebraska: Highways 205, 218
Nelson, Donald R. **225, 238**
Nelson, Lawrence 392, 394, 395
Ness, River, Scotland **402–403,** 404
"The Netherlands: Nation at War With the Sea." By Alan Villiers. Apr., pp. 530–571
Agriculture 533, 556, **559**
Airport 545–546
Art **546, 547**
Bulb industry 533, 537, 561; Research 563; Tulips 561–564, **562–563**
Canals 533, 537, 543, **548–549,** 550, 552, **562–563**
Carnivals **533, 568–569**
Dairy farming 564; Cheese market **556–557**
Delta Project *see* Delta Flood Control Project, *outlined*
Facts and figures 536
Fishing **560–561,** 564, 566
Flag **536**
Government 532; Opening of Parliament **566, 567**
History 537, 545, 564; Map of reclaimed land 539
Housing 543, 550, **555, 558**
Industries 537, 552, 556; Aircraft 546, 549, **550;** Diamond cutting **551,** 556; Electronics 568–569, **570–571,** 571; Fashion 556–557; Steel **551**
Major cities *see* Amsterdam; Rotterdam
Maps 536, 539, 542–543
Population 531
Post-war recovery 531, 550, 556, 571; Rotterdam **554–555,** 558
Religion 545
Tourism 561, 566
Trade 557
Transportation: Rotterdam 558, 560; Traffic safety **549,** 552, 560
Universities 552, 570; Students **552, 553**
Nevada: Highways 205; "Nevada's Mountain of Invisible Gold." By Samuel W. Matthews. May, pp. 668–679
Neve Glacier, Wash. **654–655**
New England: "Character Marks the Coast of Maine." By John Scofield. June, pp. 798–842
New Guinea tribesman **845**
New Harbor, Maine 812
"New Map Charts an Expanding Nation" (United States). Feb., pp. 220–221
"New National Park Proposed: The Spectacular North Cascades." By Nathaniel T. Kenney. May, pp. 642–667
New Orleans, La. 373, 374, 378
New South Wales, Australia: Aquarium 243; Beaches **249;** Sharks **248**
New York Bay, N. Y. **218–219**
Newfoundland 783, **784–785,** 787, 793
Newmont Mining Corporation 670, 674
Newsome, C. M. (Buck) 105, 109, 114–115, 122
Ngorongoro Crater, Tanzania: "Tool-using Bird: The Egyptian Vulture." By Baroness Jane van Lawick-Goodall. May, pp. 631–641
Nha Trang, South Viet Nam 484
Nicaragua, Lake, Nicaragua: Sharks 248, 256
Nicholson, Robert W. 789
"Night Watch" (Rembrandt) **547**
NIK (Coast Guard Radio Station) 790, 791
Nirvana (yawl) **843**
Nomads: Afghanistan 39; Turkoman steppe 30; Uzbekistan 43
Noordwijkerhout, Netherlands: Tulips **562–563**
Norgay, Tenzing 584
North Cascades (mountains), Wash.: "New National Park Proposed: The Spectacular North Cascades." By Nathaniel T. Kenney. May, pp. 642–667
Camping **649, 652–653,** 662, 665
Climate 649, 666
Climbing **656,** 661, **666**
Dams 648 *see also* Ross Dam
Fauna 647, **659,** 661, 665
Fishing 647-648, 656
Flora **659,** 660, **660,** 661, **664**
Glaciers **644,** 649, 656–657, **658**
Highest peaks 654
Hiking 661, **661**
History 650; Mapping 649–650
Location 643; Map 651
Mining 650, 654–655; Gold strike (1858) 650
Resorts 662, 665
Roads and trails 650, 651, 653, 660, 663, 665
Skiing 660, 665
Wilderness areas 650, 651, 654
North Cascades National Park (proposed), Wash.: "New National Park Proposed: The Spectacular North Cascades." By Nathaniel T. Kenney. May, pp. 642–667
Area 651
First proposed 650
Glaciers 644
Hunting rules 651
Map 651
Park bill 643, 651
Recreation areas 651
Towns 648
Transportation 644, 646; Aerial trams 644, 660
North Cross State Highway, Wash. 651, 660, **663**
North Inch of Perth, Scotland 412
North Minch, Scotland **424–425,** 425
North Sea 531, 533, 539, 558
North Viet Nam 448, 460; Government 485
North Vietnamese Armed Forces 450, 452, 456, 462–463, 468, 469, 470, 485
Northway (highway), N. Y. **196–197**
Northwest region, U. S. *see* North Cascades
Norton, John 358; Tomb **357**
Norway 588, 621, 627; Lapps 624
Nose flutes: Tonga 346, 348, **351**
Notre Dame de Paris (cathedral) **680–682, 693–697, 719;** "Île de la Cité, Birthplace of Paris." By Kenneth MacLeish. May, pp. 680–719

History 683, 686, 688, 692, 697
Lookout tower 683
Nave **694–695**; Height of ceiling 694
Rose windows **693**, 696
Sculpture 696; Gargoyles **682, 696–697**
Statues **682**, 692, 696
Notsjoe Glass factory, Urjala, Finland **618**
Novotný, Antonín 154, 160, **165**
Nový Bor, Czechoslovakia 182
Nuapapu (island), Tonga: Underwater cave 361–362, **362–363**, 364
Nuclear probes: Road building 202, 203
Nuku'alofa, Tonga 326, 327, 345–346, **348–349**
Nur, Paul 485
Nurmi, Paavo 612, 616, 618–619, 621
Nurse sharks **234**, 239, **242–243, 248**

O

Oakleigh (home), Mobile 378, **384–385**
Oaks, Live: Mobile 370; Bellingrath Gardens **396**
Oasis village: Morocco **858–859**
Oban, Scotland: Sheep auction **406–407**
O'Brien, Mickey **393**
Ocean Leather Corporation 237
Ocean Systems, Inc. 140–141
Oceanographic Research Institute, Durban 244, 250
Oceanography: "Tracking Danger With the Ice Patrol." By William S. Ellis. June, pp. 780–793; "Two Faces of the Atlantic." June, pp. 794–797; *see also* Man-in-Sea Project
Octopus fishing: Tonga 353, **359**
Ogunquit, Maine 801
Ohio: Fossil bed 215; Specimens **215**
Ohio River, U. S. 373, 377
Oil industry: Iran 28, **32**; St. Croix **85**, 86
Oinassalmi, Finland 611–612
Olavinlinna Castle: Finland **617**
Old Danube (lake), Vienna 760, **768–769, 778–779**
Old Orchard Beach, Maine 807
Old South Antique Auto Club: Member **384**
Old Town, Brno 163
Old Town, Prague 179
Olduvai Gorge, Tanzania 636, 640
Oliver, Rear Adm. James Harrison 95
Olomouc, Czechoslovakia 167
Olson, Harold **649**
Olympias (mother of Alexander the Great) 5
Olympic Games: Finnish champions 597, 598, 616, 618
On Approval (play): Stage set **806–807**
Opera Bali: Vienna **740–741**
Opium harvesting: Turkey 17, **17**
Oppegard, Fred **205**
Oracles: Ammon (Egyptian deity) 20, 21, 22, 28; Delphic 1, 4, 6
Ore, gold *see* Gold ore processing
Orellana, Francisco de 294, 296
Oriental-American Garden: Bellingrath Gardens **369, 397**
Oriente region, Ecuador 293, 294, 298
Ortiz, Othom Ramis, Comisario 886
Ostrava, Czechoslovakia 167, 169; Industries **177**
Ostrich eggs **630–633, 640**; Painted **634, 637**, 640–641; Plaster-filled 636, 638, **638–639**; Shell **636**, thickness 632
Ostriches 631, **633**
Otavalo, Ecuador 276, **284**
Ottawa, Canada: Parliament **134**
Ounasvaara International Winter Games, Rovaniemi, Finnish Lapland **620**
"Our Growing Interstate Highway System." By Robert Paul Jordan. Feb., pp. 195–219
"Our Virgin Islands, 50 Years Under the Flag." By Carleton Mitchell. Jan., pp. 67–103
Outlaw, Arthur R. **378**
Outlaws and bandits: Texas 118–119
Outokumpu copper works, Finland 612, **618–619**
Outward Bound program 829–830
Ouzirimt, Morocco 869, 870–871, 873
Owl, Elf 440, **441**
Oxus River (Amu Darya), Asia 39, 45, 48
Oxygen masks **141**
Oyster tongers: Mobile Bay **368**, 392, 394, 395

P

Paasikivi, Juho Kusti 598
Pacific islands *see* Tonga Islands
Pacific Northwest *see* North Cascades
Page House, Wiscasset, Maine **816**
Pahlavi, Mohammad Reza (Shah of Iran) 39; "Coronations a World Apart." By Frederick G. Vosburgh. Mar., p. 299; "Iran's Shah Crowns Himself and His Empress." By Franc Shor. Mar., pp. 301–321
Pahlavi Crown **300**, 301, **306, 307**
Pahlavi Dam, Iran **63**
Paiewonsky, Ralph M. 86, **93**, 95, 97
Paintings: "In the Footsteps of Alexander the Great." Paintings by Tom Lovell. Jan., pp. 1–65
Pakistan 46, 49, 56 *see also* Kalash Kafirs
Palais de Justice, Paris 683, 699, 701, **702–703**, 703–705; Map drawing **689**; Parking lot **707**
Palfrey, Lt. Comdr. Kennard M., Jr. **787**, 792
Palmai-Tenser, Mme. Rose **383**
Panama hats: Ecuador 281, **288**, 289
Pan American Clippers 586, **586**
Pan American Highway: Ecuador 270, 276–277, **279**, 283
Pan American Seed Company, Paonia, Colo. 731, 734
Pan American World Airways: Chairman *see* Trippe, Juan T.; History 584, 586; Planes 586, **586**
Papendrecht, Netherlands **540**
Papermaking industry: Mobile **386–387**, 388, 392
Paradise, Île de la Cité *see* Parvis
Paris: "Île de la Cité, Birthplace of Paris." By Kenneth MacLeish. May, pp. 680–719
Park, George 731
Park, underwater *see* Buck Island Reef National Monument, Virgin Islands
Park Creek horse trail, Wash. 665
Park of Culture and Recreation, Prague **166–167**
Parker, Quanah 118, **120**, 129
Parks, Winfield **137**; photographer: "The Highlands, Stronghold of Scottish Gaeldom." Mar., pp. 398–435; "Iran's Shah Crowns Himself and His Empress." Mar., pp. 301–321
Parmenion (Greek general) 13, 15, 19, 32
Parrot, Senegal **705**
Parthenogenesis: Aphids 505
Parviainen, Keijo **610**
Parvis, Île de la Cité, Paris 683, 686
Pasayten Wilderness, proposed, Wash. 651
Pashtoon, Rsul 32–33
Passamaquoddy Indians: Baskets **834**
Passamaquoddy Project 838–839
Passion play: Brno 164–165
Patton, Gen. George 188
Paul, St. 13, 17
Pa'ula Pola (Tongan warrior) 358
Paver, automatic 203, **204–205**
Payne, Dr. Melvin M. 584; Article by: "The World in Geographic Filmstrips." Jan., pp. 134–137; Photographs of **136, 529**
Pazmiño, Rómulo 270, 273, **274**
Peace Tower of Parliament, Ottawa **134**
Pear tree **502–503**
Peary, Robert E. 584; Summer home 807
Peat **430**
Peccary, Collared **118**

Pecora, William T. 668, 670–671
Pedersen, Mrs. Peer T. **808**
Peebles, Laura Lee **375**
Pelagic sharks 238, 245
Pella, Macedonia 6, 8, **8–9**
Pemaquid, Maine: Colonial settlement 819–822
Pemaquid Point, Maine **810–811, 822–823**
Pennsylvania: Highways **194–195, 202**
Penobscot Bay, East, Maine **818–819,** 823-824
Penttinen, Reino 611
People's Democratic League (Communist): Finland **594**
Persepolis, Persia 12, 29, **34–35;** Ruins **36–37**
Persian Empire: "In the Footsteps of Alexander the Great." By Helen and Frank Schreider. Jan., pp. 1–65
Army 13; Warrior **36**
Capital *see* Persepolis
Dress **64–65**
Navy fleet 15, 19, 26
Power and extent 1, 3, 5
Provinces 29
Roads 61, 63
see also Alexander the Great; Darius III
Persian Gates (pass), Zagros Mountains: Battle 32
Persimmon Gap, Big Bend National Park 112, 113
Peru-Ecuador border dispute 263, 283
Pešková, Jana **189**
Peter Peak, St. John **76–77**
Petit point embroidery 743, **754–755**
Petr Bezruč coal mine, Ostrava 169
Petroglyphs: Big Bend National Park 127
Petroleum *see* Oil industry
Petsas, Photios 6, 8
Petty Harbour, Newfoundland 783, **784–785**
Petunias **720,** 724, 725, **725, 726,** 731, **733,** 733–734
Peyote (cactus) 127
Phi Di Ya, South Viet Nam 473, 478, 479, 480, 484, 485
Philip II, King (Macedonia) 8, 9, 15; Assassination 5, 8
Philippine Islands: Sharks 243
Philips, Anton 569
Philips, Dr. Gerard 568
Philips Company, Eindhoven 568–569, **570–571,** 571
Phillips, Staff Sgt. James 462–464, 472
Philotas (Greek general) 32
Phoenicia *see* Tyre
Photosynthesis 492, 497
Phototropism 497
Physa heterostrophia (bubble snail) **504**
Pickerell, James H. (*Black Star*): "Dory on the Banks: A Day in the Life of a Portuguese Fisherman." Apr., pp. 573–583
Picket Range, Wash. **642–643,** 650, 660, 661
Pictographs: Aztec 880, **883;** Cave Dweller Indian **109,** 114–115
Picts: Scotland 414, 416, 418, 425
Picture Lake, Wash. **658–659, 660**
Piehl, Jack E. 783
Pierce, Franklin 809
Pig, roasted: Tonga **334,** 342, **361**
Pik Meer, Netherlands **530–531**
Pike, Moses 838
Pilolevu, Princess (Tonga) **325,** 342
Pilotfish **225,** 242, **257**
Pilsner beer 188, 191
Pink, wild **512**
Pinkas Synagogue, Prague **169**
Pionýři (Communist youth group) 173
Pirates: Virgin Islands 69, 94–95
Píša, Dr. Vladimír 159–160
Piscataqua River, Maine-N. H. 801
Pizarro, Francisco 273, 275, 295
Pizarro, Gonzalo 295, 296, 298
Plant breeding *see* Flower breeding
Plant physiology: "Nature's Year in Pleasant Valley." By Paul A. Zahl. Apr., pp. 488–525
Autumn color 512, 513
Cell division 492, 497, **499**
Geotropism 497
Photosynthesis 492, 497
Phototropism 497
Seeds and seedlings 492, 497, **497, 499, 510, 519**
Plantains **264**
Platt, Lee 90, 92
Platte River Valley, Nebr. 218
Plaza, Galo 275–276, **276**
Pleasant Valley area, Md.: "Nature's Year in Pleasant Valley." By Paul A. Zahl. Apr., pp. 488–525
Plei Kenh Mek, South Viet Nam 475
Plockton, Scotland **418–419**
Plutarch: Quoted 1, 4, 9
Plzeň, Czechoslovakia: Industry 188, **190–191**
Poděbrady, Czechoslovakia 181–182, 187
Pohjanmaa district, Finland 622–623
Poinsettias **76–77**
Poison ivy 494, 496
Poisonous Animals Research Laboratory, Arizona State University 437
Pokorná, Anna 183, 185
Poland 174, 178, 185
Polaris-missile submarines 801, 802–803
Polders: Netherlands 533, **538;** Map 536
Polistes (wasp) 505, 508–509; Queen **509**
Pollen **720,** 724, **731**
Pollenation 722, 724, **725,** 729–730, 734
Polygamy: Berbers 871; Iran 310; Jarai tribe (Viet Nam) 477
Polynesia *see* Tonga Islands
Pommern (Finnish windjammer) 621
Pompidou, Madame Georges 711, 714
Pontchartrain, Lake, La.: Bridge 220
Pont Neuf, Paris **686–688, 708–709**
Poppies, opium: Turkey 17, **17**
Porbeagles (sharks) **233–234,** 238
poro see Reindeer
Porpoises 245
Port-au-Prince (British privateer) 328, 360–361, 363; Cannon **364**
Port Lions, Alaska 221
Portland, Maine **804–805,** 807–808
Portsmouth, N. H. 801
Portsmouth Harbor, Maine 801
Portsmouth Naval Shipyard, Maine 801–803
Portuguese codfishing fleet: "Dory on the Banks: A Day in the Life of a Portuguese Fisherman." By James H. Pickerell (*Black Star*). Apr., pp. 573–583; "The Lonely Dorymen" (television announcement). Apr., pp. 579A–579B
Porus, King (India) 56, 58
Posesi Fanua, Tupou 353
Posthuma, Frans 557, 558
Potato crop: Finland **607**
Powell, Stephen **812,** 815–816
Pownall, Thomas: Portrait of **812**
Prachatice, Czechoslovakia 188
Prague, Czechoslovakia 151, **156–157,** 158, 159, **159–161,** 160–161, 163, **166, 167, 169**
Prague Castle *see* Hradčany
Prague Spring (music festival) **162,** 179
Prague Symphony Orchestra 179–181
Prater park, Vienna **742, 746–747,** 749, **774**
Prayer, Mnong (*khual yaang*): Quoted 482
Praying mantis 517, 520, **522;** Egg case, hatching **523**
Pre-Columbian sculpture **268**
Presidents, U. S. 527, 529
Primrose **727;** Anatomy **724**
Pringle's Holm Mills, Inverness **405**
Privateers: St. Thomas 94–95
Project Rainstart: Virgin Islands 88, 90
Pub: Scotland **413**
Puccini, Giacomo: Opera 383, cast of **382–383**
Puijo International Winter Games, near Kuopio, Finland **621**

Pulliam Ridge, Chisos Mountains **116–117**
Putifar (bull, European bison) 174
Pyramid: Dahshur, Egypt **29**
Pyynikki Summer Theatre, Tampere, Finland **612–613**

Q

Quai des Orfèvres, Paris **708**
Quasimodo (restaurant), Paris 688
Quechua language: Ecuador 267, 296
Queen Anne's lace (wild flower) 503, **510–511, 513**; Seed sprout **510**
Queen-cup (flower) **659,** 661
Queen Sālote College, Tonga 332
Queensland, Australia: Beach **249**; Coral gardens **245**
Quilting bee: Maine **828–829**
Quinn, Frank, Master Sgt. **472**
Quito, Ecuador **260–261,** 262, 264–267, **270–271**; Church 265–266, **272–273**
Quito, Kingdom of 264, 273, 275
"Quito Weeping" (Guayasamín) 267, **268**

R

R. R. Donnelley & Sons Company, Chicago: President **529**
Radar 783, 789, 791
Radish seedlings **497**
Radium: Czechoslovakia 185
Radium Palace sanatorium, Karlovy Vary 187
Ragged-tooth sharks **244,** 250
Rahman, Abdur 39
Railroad, first transcontinental 214
Rainier, Mount, Wash. 649, 654
Rainmaking: Virgin Islands 88, 90
Rall, Dr. David P. 231
Ramona (boat) **393**
Range finder **787**
Rapanut, Simon **735**
Ratia, Armi 601, 607
Rauscher, Anna **754**
Red Rock (Červená Skala), Czechoslovakia 174, 176
Redé, Alexis, Baron de 711, **712**; Home **712–713**
Reindeer: Finland 623–624, **626–627,** 627, 629, ear marks 624, **624**
Reinelt, Frank 734
Rembrandt 550; Painting by **547**
Remoras (fish) **237,** 242
Research vessel *see Sea Diver*
Revised Organic Act (1954): Virgin Islands 95
Reza, Crown Prince (Iran) **309,** 311, 315, 320
Rhine-Maas-Schelde Delta, Netherlands 533, 539, 541, 557; Map painting **542–543**
Rhine River, Europe 534; Delta *see* Delta Flood Control Project
Rice: Ecuador 284, **288**; South Viet Nam **448–449,** 456, beverages **459,** 482, ceremonies 478, 481–482, **484, 485**
Rich, Zoeth **826**
Riechelmann, Jack 327, 342, 362
Riechelmann, Mrs. Jack (Kato) 327, 337, 342
Rietveld, Jerry 564
Riggs National Bank, Wash., D. C.: President *see* Fleming, Robert V.
Rijksmuseum, Amsterdam 546
The Ring, Vienna 739, 742, 744, **746–747,** 761, 765; Maps 750
Rio Grande (river), U. S.-Mexico *see* Big Bend National Park
Road building: "Our Growing Interstate Highway System." By Robert Paul Jordan. Feb., pp. 195–219
  Erosion 203
  History 203, 205
  Machines and instruments **194–195,** 202–203, **202,** 203; Nuclear probe 202–203; Paver, automatic 203, **204–205**
  Materials 198, 205, 214
  Natural obstacles 214, **214**
  Planning 196, 202
  Sewers 203
  Tunnels 202, **214**
Roadrunner (bird) **118**
Roberson, Robert 279
"Robert V. Fleming, 1890-1967." By Melville Bell Grosvenor. Apr., pp. 526–529
Roberts Mountain thrust fault, Nev. 674
Robinson, John 215
Rochette, Jack 243
Rockefeller, David 86, 88
Rockefeller, Laurance S. 69, **70,** 70–71, 86, 88
Rockefeller, Mrs. Laurance S. (Mary) 69
Rockefeller, Nelson A.: Yacht **843**
Rockland, Maine: Farnsworth Museum 822; Seafood festival 801
Rockport, Maine 819; Antique shop **830**
Roenne, Torben **93**
Rohan, Jindřich 179–181
Roi (Jeh soldier) **448**
Roij, Anneke le 561
Roman fortress: Czechoslovakia 170
Roman temples: Ephesus **16**
Romans: Paris 683, 687, 719; Vienna 739, 744
Rome, ancient: Roads 203
Rommel, Erwin, Field Marshal 20
Roosevelt, Franklin D. 840, 842; Administration 198
Rose windows: Notre Dame de Paris **693,** 696
Ross, Alexander 650
Ross Dam, Wash. 648, 662, **662–663**
Ross Lake Resort, Wash. 662
Rotary Rehabilitation Center, Mobile 388; Deaf children **389**
Rotterdam, Netherlands **534–535,** 536, 542, 557–558; Concert hall **554–555**; Post-war recovery 554, 558
Round-the-Bay yacht race: Mobile Bay **390–391**
Rovaniemi, Finland 623, 624, 626, 627; Winter Games **620**
Roxane (wife of Alexander the Great) 43, 64
Royal Dutch Shell (oil company): Ecuador 296
Royal Naval College, Den Helder, Netherlands: Officer-cadets **565**
Royal Netherlands Blast Furnaces and Steelworks, IJmuiden **551**
Royal Netherlands Marines **533, 567**
Royal Palace, Tonga **326, 330–331,** 334, 340, **349**
Royal Stewart tartan **400**
Royal Teheran Hilton, Teheran: Fireworks display **320–321**
Royal Tombs, Tonga **349**
Rožmberk family 190
Rožmberk pond, Bohemia **182**
Ruby Mountain, Wash. 660, **663**
Rugby: Tonga **340–341,** 343
Rugs, Persian: Cleaning **40**
Ruíz, Jesús **289**
Ruiz Piña, Dr. 886
Rumbur Valley, Pakistan 52, 54
Rumiñahui (Inca chief) 264
Rüppell's griffons (vultures) 632, 638
Ruskeala, U.S.S.R. 607, 610
Russell, Lester: Barbershop **812–813**
Ruth Mountain, Wash. **664**
Rutherford, John Schley 375
Ruvalcaba, Luz Maria **885**
Ruvalcaba, Martha Estella **885**
Ryan, John G. 792

S

Saadabad Palace, Teheran 301
Saarinen, Eero 597
Saarinen, Eliel 588, 597
Sacher, Hotel, Vienna 751, 775, 777
Sackett, Ray C. 205
Saguaro cactus 440, **441, 442**
Said (Berber tribesman) 850, 856
Saigon, South Viet Nam 443, 484, 485, 487; U. S. Embassy 443, 484
Sailboat races: Helsinki Regatta **602–603**; Mobile Bay **390–391**
Sailboats: Belém, Brazil **295A**; Vienna 760, **768–769, 779**
Saint, Nate 294
St. Barbara, Cathedral of, Kutna Hora 163
St. Bavo, Church of, Haarlem, Netherlands 568

St. Croix, V.I.: "Our Virgin Islands, 50 Years Under the Flag." By Carleton Mitchell. Jan., pp. 67–103
Airports 86, 97; Amphibian plane **82–83**
Celebrations **68–69**
Farm, experimental 78
Geographic diversity 83, 86
History 83–85, 89, 90
Industries **75, 84–85,** 86
Major town *see* Christiansted
Map 73
Port 79
Ranch **90–91**
Sugar plantations **88–91**
St. Étienne Church, Paris 687–688
St. James's Church, Prague 164
St. John, V.I.: "Our Virgin Islands, 50 Years Under the Flag." By Carleton Mitchell. Jan., pp. 67–103
History 71, 74
Land values 86
Map 72
Market, floating **78–79**
Panoramas **66–67, 80–81, 102–103**
Park 69–70, 74, 76, **81**
Poinsettia garden **76–77**
Population 68
Sugar plantations 69, **70–71,** 74
St. John's, Newfoundland 790, **790–791**
St. Louis, Île, Paris: "Île de la Cité, Birthplace of Paris." By Kenneth MacLeish. May, pp. 680–719
Air view **719**
Atmosphere 705, 710, 714, 717
Ball, candlelight **685, 713**
History 710–711
Homes **710–713,** 710, 711, 714–715
Inhabitants **684,** 705, 710–711, **710–712,** 714–715, 717
Map drawing, with key **690–691**
Official reception hall **700,** 711
Wartime 710
St. Nicholas Church, Amsterdam **548**
St. Regis Paper Company: Log drive **820–821**
Saint Sophia, Church of, Thessaloniki 13
St. Stephen's Cathedral, Vienna **746,** 774–775
St. Thomas, V.I.: "Our Virgin Islands, 50 Years Under the Flag." By Carleton Mitchell. Jan., pp. 67–103
College 74
History 71, 82, 94–96, 97
Map 72
Population 97, 101
Underwater test center **94–95,** 101–102
Water catchments 73
Yacht charter 102–103
see also Charlotte Amalie
St. Vincent de Paul, Sisters of **465,** 472
St. Vitus's Cathedral, Prague **160–161,** 163
Sainte Chapelle (church), Paris 701, 703, **706–707**
Saints, statues of: Notre Dame de Paris *see* Apostles
Salmon, Atlantic **427**
Sālote Tupou III, Queen (Tonga) 325, 329, 332, 346, **350**
Salt mine: Toumliline, Morocco **868**
Sam Houston, U.S.S. 802–803
Samad, Abdul 52, 53, 55, 56
Samarkand, Uzbek S.S.R. 41, 43–44, **48;** Teahouse **48–49**
Same (Lapp) 624, 627
Samkalden, Ivo 550
Samoset (Indian chief) 811
Samuel, Noble 74, 76
Sand Lance (nuclear submarine) 801
Sand tiger sharks 230, **234,** 239, 243, 248, 250
Sandbar sharks **234,** 238, 254
San Francisco, Church of, Quito 265–266, **272–273**
Sangay (volcano), Ecuador 273
San Joaquin Valley, Calif. 215
San Juan, Fiesta of: Ecuador 276, **276–277**
San Pedro, Río, Mexico 876, **877–879,** 882, **882–883**
Santa Cecilia, Ecuador 296, 298
Santa Elena, Mexico 129
Santa Elena Canyon, Rio Grande 122, **123**
Santiago, Miguel de 266–267
Santo Domingo de los Colorados, Ecuador 289–290, **292**
San Vicente, Mexico 124–126; Presidio 126
Sarpaneva, Timo 595
Satellites: Tracking antenna 270, **298;** TV-transmitted photographs **791,** 792, **795**
Satrap (Persian governor) 25
Saudi Arabia: Oil industry 28
Sauna, Finnish 627, 629
Sauna, mock **612**
Savonlinna, Finland 607, 608, **617**
saz (musical instrument) 15
Scad (fish) **144**
Scandinavia *see* Finland
Schaefer, Rudolph 808, 818
Scheele, William W. **215,** 218
Scherschel, Joseph J., photographer: "Mobile, Alabama's City in Motion." Mar., pp. 368–397
Schiphol Airport, Amsterdam 545–546, 571
Schneider, E. A. 751
Schneider, Capt. Michal 170, 173
Schoemaker, H. J. 539
Schönbrunn Palace, Vienna 766, **770–771, 772, 773**
Schoodic Point, Maine **798–799**
Schooners, fishing **577, 579A, 579B**
Schrammel, Josef and Johann 762
Schreider, Frank **27, 60**
Schreider, Helen **44, 45**
Schreider, Helen and Frank: "In the Footsteps of Alexander the Great." Jan., pp. 1–65
Schubert, Franz 751, 761, 764, 765, 775
Schultz, Dr. Leonard P. 224, 228
Schwamberger, Rudolf **186**
Scofield, John: "Character Marks the Coast of Maine." June, pp. 798–843
Scoraig, Scotland: Harvest **409**
"Scorpions: Living Fossils of the Sands." By Paul A. Zahl. Mar., pp. 436–442
Birth **440**
Diet 441
Enemies 440; Elf owl **441**
Fluorescence 440, **441**
Mating ritual **439**
Molting **439,** 441
Species 438; *Centruroides sculpturatus* 437, **437,** 439, **439,** 440, 441, 442; *Hadrurus arizonensis* (hairy) **436–437, 438, 441,** 442, **442;** *Vejovis spinigerus* **440**
Stinger **436,** 438
Threat 437, 438, 441
Venom, milking **438,** 439
Scotland: "The Highlands, Stronghold of Scottish Gaeldom." By Kenneth MacLeish. Mar., pp. 398–435
Scots (ancient Irish) 413, 414, 416
Scott, Gen. Hugh L. 126
Scottish Highlands: "The Highlands, Stronghold of Scottish Gaeldom." By Kenneth MacLeish. Mar., pp. 398–435
"Capital" *see* Inverness
Cattle **416–417**
Clans 407, 409, 415, 420, 425, 427; Tartans **400–401, 406, 412, 421,** cover ill.
Crofting 404, **409,** 411, 412, 413, 415, 422, **422–423,** 427, **428–429,** 430, 433
Economic problems 404, 412–413
Festivals **400–401**
Fishing 424, **427,** 430–431
History 412, 413, 414, 415–416, 418, 422, 423, 425
Industry **405,** 413, 415, 434
Language 404, 415, 416, 418, 432–433
Lochs **398–399, 410, 434**
Maps 408, 409
Population 409, 412–413, 429
Pub **413**
Reforestation 412, 415
Sheep **404, 407,** 413, 427
Villages **418–419, 426,** 433
Scourby, Alexander 295A, 579A
Sculpture: Ecuador 266, **268, 272–273**
Sea Diver (research vessel): "A Taxi for the Deep Frontier."

By Kenneth MacLeish. Jan., pp. 139–150
Seal, Ringed 603
Seal hunting: Finland 606
Seattle City Light company: Dams 648–649, 662, **662–663,** 667
Secoya Indians: Ecuador **294,** 296
Seed industry *see* Flower seed industry
Seedsmen: "The Flower Seed Growers: Gardening's Color Merchants." By Robert de Roos. May, pp. 720–738; Included: Howard Bodger, David Burpee, Frank G. Cuthbertson, David S. Denholm, Glenn Goldsmith, George Park, Frank Reinelt, Elmer Twedt, John Waller, Charles Weddle, William Zvolanek
Seidler, Ned 726; Painting by **726–728**
Seine (river), Paris **680–681, 682, 686–688, 708, 716, 719;** Bridges **680, 686–688, 708–709;** Fishermen 703, 710; Left Bank **683,** 686, 687, **719;** Right Bank 717, 718, **718–719**
Self, John J., Master Sgt. 450, 457, 463, 464
Senior Bowl Game: Mobile 370
Serengeti National Park, Tanzania: "Tool-using Bird: The Egyptian Vulture." By Baroness Jane van Lawick-Goodall. May, pp. 631–641
Serlachius, Erik 616, 618
Serlachius Oy (paper mill), Finland *see* G. A. Serlachius Oy
747's (passenger planes) 586
Shagreen (shark hide) 241
Shahnaz, Princess (Iran) **308,** 315, 320
Shams, Princess (Iran) **308**
Shark fin fossil **215**
"Sharks: Wolves of the Sea." By Nathaniel T. Kenney. Feb., pp. 222–257
Anatomy 231, 241
Attacks 224, **238–239,** 243, 248, 250, 255; Attraction by prey 228–230; Causal factors 256
Biggest *see* Whale sharks
Breathing 241, 245, 248
Camouflage **244**
Class 241; Relatives 241
Commercial products 237
Defense against: Cage **240;** Chemicals 231, 254; Electronic repellent 231; Gun **225, 253,** 255; Meshing 248, **248,** 250–251; Poison 256; Sack **230,** 231
Evolution 242–243
Food 232, 246; Feeding 230, **244, 246–247,** 251, 254
Fresh-water species 248, 256
Hide 237, 241
Jaws 246, 248; Power 241, test **250–251**
Man-eaters 232, 238–239
Medical research 231, 237
Reproduction 230, 241
Smallest 243
Sound sensitivity 227, 229–230; Diagram 230–231
Species **232–234;** Number 232, 237
Speed 245
Sport fishing 244, 255
Teeth 224, 229, 237, 241
Vision 227, 246; Eyes 223–224, **227,** 246; Tests **226–227**
see also names of species
Sheep: Scotland **404, 407,** 413, 427
Shell Oil Company *see* Royal Dutch Shell
Shelton, William Roy 846, 849
Ship disasters: *Hans Hedtoft* 793; *Titanic* 783, 787, 792, **792–793,** 793; World War II convoy 792–793
Shor, Franc: "Iran's Shah Crowns Himself and His Empress." Mar., pp. 301–321
Shrimp fishing: Mexcaltitán 876, 882, **886–887,** 888
Shrimp fleet: Bayou La Batre, Ala. **394–395**
Shuksan, Mount, Wash. **658–659,** 660, **660**
Sibelius, Jean 612, 616
sibi (Montagnard salad) **453**
Sidewalk cafe: Île de la Cité, Paris **698–699**
Sigel, Dr. M. Michael 231
Šik, Dr. Ota 155
Silky sharks **233–234, 238,** 238–239, **240–241**
Silsby, William S. **841**
siput (Montagnard tool) **461**
Sir Francis Drake Channel, Virgin Islands **66–67,** 69
Sirius, H.M.S. 342, **348**
Sistrum (ancient Egyptian rattle) 137
sisu: Finns 587, 591, 619
Siwa Oasis, Egypt 20–21, 28, 30
Skagit Hydroelectric Project **662–663**
Skagit River, Wash. 648, 662; Dam 648, 662, **662–663;** Valley **663**
Skiing: Czechoslovakia 178–179, 180; Finland **597, 620–621**
Škoda (industrial complex), Plzeň 164, 188, **190–191**
Škoda automobile 163, 178, **190,** 192
Skunk cabbage 496
Skunks 491, 522
Slafkovský, Otto 176
Slaughter, Scott **253**
Slavic empire 154
Slavkov (Austerlitz), Czechoslovakia 167
Slip-form paver 203, **204, 205**
Slochteren, Netherlands: Natural-gas well **571**
Slovakia (region), Czechoslovakia 151, **154, 155,** 163, 164, **170–171,** 173–174, 176, 178–179, **180–181,** 190–193; Steelworks **152–153, 176**
Slovakian Shipyards 170, 173
Slovaks 151, 153, 169, 170, 190–193
Sluices: Netherlands 533, **540,** 541, 542; Construction **544–545;** Diagram **544**
Small, Dr. Parker A. 231
Small, Peter 145
Smetana, Bedřich 181
Smetana Hall, Prague 179
Smith, Maggie 119–121
Smith, Robert B. 88
Smithsonian Institution, Wash., D.C. 380, 382; Bell telephone exhibit opening (1957) **529;** Board of Regents member 527, 529; Executive Committee chairman 527; Shark-attack file 224, 256
Smuggling: Candelilla wax 119–121, raid **124–125**
Snail, Bubble **504**
Snakes 522, 524; Black snake **508,** 522
Snapdragons 724, **727, 736;** Seeds and seedlings **735**
Snowmobiles **839**
Snyder, John W. 529
Sochurek, Howard: "Viet Nam's Montagnards." Apr., pp. 443–487
Sogdiana Rock (mountain), U.S.S.R. 43
Sokolovský, Evžen 164–165
Solomon, King: Painting of **21;** Symbol on crown **772**
Solvang, Lt. Comdr. Arthur 792
Somberg, Herman 546
Sorem, Alice **637**
South Africa: Sharks 248, 250–251
South America: "Amazon" (television announcement). Feb., pp. 295A–295B; *see also* Ecuador
South Dakota: Road building **204–205,** 205
South Rim, Chisos Mountains **104–106,** 115
"South Seas' Tonga Hails a King." By Melville Bell Grosvenor. Mar., pp. 322–343
South Viet Nam: "Viet Nam's Montagnards." By Howard Sochurek. Apr., pp. 443–487
Capital *see* Saigon
Corruption 466
Government 448, 464, 477, 485
Hill tribes *see* Montagnards
Jungles 443, **445**
Roads 443, 449, **457**
Special Forces camps 448, 470 *see also* An Lac; Dak Pek
Welfare programs *see* Montagnards, *outlined*
Southeast Asia (NGS filmstrip) 134, **136,** 137
Space walk, by Maj. Edward White **844–845**
Spain, Portugal and Gibraltar

(NGS filmstrip) 134, **136,** 137
Spakenburg, Netherlands 564
Spanish Riding School, Vienna 743, **745,** 746, 761
Spas: Czechoslovakia **184–185,** 185–187
Special Forces camps, South Viet Nam: Helicopter transport 443, 448, 449, 450, 466, 484; Number of 448; Overrun by Viet Cong 470; *see also* An Lac; Dak Pek; Dak To
Special Publications, NGS: "Announcing Four New Geographic Books: Australia, Space Exploration, Vanishing Peoples, African Animals." By Gilbert M. Grosvenor. June, pp. 844–849
"The Spectacular North Cascades: New National Park Proposed." By Nathaniel T. Kenney. May, pp. 642–667
Speer, Kenneth **203**
Spinning: Camel hair **29**
Spiny dogfishes (sharks) 231, **232**
Spring Hill College, Mobile 383, 385
Springer, Stewart 228, 230–231, 254, 256
Squaliolus laticaudus (shark) 243
Square-dancing **838**
Squash bugs 503, 505, **514**
Squid **144–145**
Stadtpark, Vienna **752–753,** 765
Stahnke, Dr. Herbert L. 437, 438
Stained glass *see* Notre Dame de Paris; Sainte Chapelle
Stanfield, James L., photographer: "Big Bend: Jewel in the Texas Desert." Jan., pp. 104–133; "Iran's Shah Crowns Himself and His Empress." Mar., pp. 301–321; "Our Virgin Islands, 50 Years Under the Flag." Jan., pp. 67–103
State of Maine (training ship) 824, **833**
State Opera House, Vienna **740–741,** 751, 760; Performers **760–761**
Staten Island, N. Y. **219**
Steam engine **128**
Steel band: Virgin Islands **100–101**
Steel industry: Czechoslovakia **152–153, 176–177,** 178; Netherlands 551
Steele, Walter "Woody" 296, 298
Stehekin, Wash. 644, 646, 647, 648
Stehekin Valley, Wash. 646–647
Stemples, J. G. **240**
Step Pyramid, Egypt **134**
Stewart, B. Anthony, photographer: "Character Marks the Coast of Maine." June, pp. 798–843
Stockmann's Department Store, Helsinki **600–601**
Stoer Head Lighthouse, North Minch, Scotland **424**
Stone-throwing birds *see* Vulture, Egyptian
Store Hellefiske (bank), North Atlantic 574
"Story of the National Geographic" (Grosvenor) 738
Stove, clay: Mexcaltitán 884, **886,** 888
Stowe, Harriet Beecher 812–813
Strange, Mrs. Ed 646
Stratená, Czechoslovakia 176
Strauss, Eduard 753, **764**
Strauss, Johann 743, 753, 762, **764**
Strážky Castle, Czechoslovakia 190–192
"strikers" (Montagnard combat forces) *see* CIDG
Studebaker (1915) **216**
Study Butte, Tex. 119, 121
Sturdee, Charles **817**
Sturgeon, William (Bill) 370, 372, 373, 374
Suarez, Guillermo 262
Submarines 801–803 *see also Deep Diver*
Sudetenland, Czechoslovakia 182–183, 185
Sugar industry: Virgin Islands 73, 89, 90; Plantation house **88–89**
Sully, Maurice de, Bishop of Paris 683
Summer Institute of Linguistics: Ecuador 296
Sun, never-setting: Finland **624–625**
Sunbeam IV (ship) 835
Suomi see Finland
Supalo, José María **275**
Supalo, José María, Jr. **258**
Suratgar, Dr. Lotfali 320
Surfing: Tonga **343**
Surtsey (island), North Atlantic Ocean 797
Susa, Persia 12, 64
Sutherland County, Scotland **428–429,** 433; Croft 428–429, **430**
Šváb, Dr. Leopold 187
Sweden 588, 598, 608, 619; Finland border **616–617;** Lapps 624
Sweet peas (flower) **722,** 725, **727,** 732, 734, **736;** Seeds **735**
Swidden farming: South Viet Nam 460, 473
Sword-dancing: Highland Games **400**
Swordfish **796**
Sydney Opera House, Sydney, Australia **846**
Symphony No. 6 (Prokofiev) 180–181
Synagogue: Charlotte Amalie **96–97**
Synedrapuchella (sea plant) **796**
Syria: Agriculture 22

T

Ta'aufo'ou, Paea **329**
Tahmahkera, Lewis 129, 132
Tail of the Banks, Grand Banks 787
Tamazight (language) 852, 854
Tamerlane 43, 44, 48
Tampere, Finland 616; Potato harvest **607;** Theater, outdoor **612–613**
Tanager, pet **293**
Tanzania: "Tool-using Bird: The Egyptian Vulture." By Baroness Jane van Lawick-Goodall. May, pp. 631–641
Tapa (bark cloth) 329, 342, 343, 346, **350;** Making **352–355**
Tapiola, Finland 597, **600**
Tapiontorni (town hall), Tapiola **600**
Tarmo (Finnish icebreaker) **608**
Tasman, Abel Janszoon 346
Tatra Mountains, Czechoslovakia 164, 178–179, **180–181**
Tattooing: Berber women **850, 854**
Taufa'ahau Tupou IV, King (Tonga) **343,** 353, 357, 362, 364, 365, 367; Coronation 299; "South Seas' Tonga Hails a King." By Melville Bell Grosvenor. Mar., pp. 322–343
Ceremonies: Christian **324–325,** 337–340; Native 343
Coin, commemorative 342
Dancers **322–323, 326–327, 334–335,** 336, 342
Delegations 326, 327, **331,** 336
Feast **334–335,** 342
Procession **330, 333,** 339–340
Robe **330,** 338
Stamp, commemorative **342**
Tributes **332–333, 336–337,** 342
Taul, Tommy **393**
Tautschnig, Dr. Walter 775
"A Taxi for the Deep Frontier." By Kenneth MacLeish. Jan., pp. 139–150
Taylor, Ron 224, 229
Tea ceremony: Morocco **852–853,** 856, **874–875**
Teahouse, Japanese: Bellingrath Gardens **369,** 397
Teasel (plant) **512–513, 524–525**
Technological Institute, Helsinki: Student Union building **603**
Tecumseh, U.S.S. 378, 380–382, **380;** Anchor **381**
Teheran, Iran: "Iran's Shah Crowns Himself and His Empress." By Franc Shor. Mar., pp. 301–321
Telč, Czechoslovakia **193**
Teleosts (true-bone fishes) 241
Television: Highway monitoring 206, **211**
Television announcements, NGS: "Amazon." Feb., pp. 295A–295B; "The Lonely Dorymen." Apr., pp. 579A–579B
Telouet, Morocco 875
Tembouret, Étienne **715**
Tennessee-Tombigbee Waterway (proposed) 373, 377; Map 377

Tennessee versus *Hartford:* Battle of Mobile Bay **380**
Tenochtitlán (Aztec city) 880
Tensaw River, Ala. 370, 372, **372–373,** 392
Teplá (Warm) River, Czechoslovakia **184**
Tester, Dr. Albert L. 228, 246, 251
Texaco-Gulf oil company 296, 298
Texas: "Big Bend: Jewel in the Texas Desert." By Nathaniel T. Kenney. Jan., pp. 104–133; Highways 200, 209, 210, 211
Texas Canyons State Park, Tex. 107
Texas Parks and Wildlife Department 122
Texas Transportation Institute 207
Texcoco, Lake, Mexico 880, 888
Thakombau, Edward 325, 327
Tharp, Marie 795, 797
Theater, revolving: Tampere, Finland **612–613**
Thessaloniki, Macedonia 13
Thirty Years' War 159
Thistle (plant) 500, 513, **518;** Seeds **519**
Thomas (Apostle): Statue **682**
Thomas, Elizabeth Marshall 847
Thomason, R. E. 107
Thomassen, Willem 560
Thorson, Dr. Thomas B. 256
Thresher sharks **234,** 239
Thunder Lake, Wash. **645**
Thyringer-Müllner, Ingrid **760**
Tielens, Arthur J. 86
Tiger sharks **232,** 238, 248
Tillett, Jim **75,** 97
Tinerhir, Morocco 854, **858–859;** Dancers **856–857;** Tea ceremony **852–853**
Titanic, S. S. 783, 787, 792, **792–793,** 793
Titcomb house, Brunswick 809, 812
Todra, Oued, Morocco 858
Tofua Island, Tonga **356–357,** 358, 360
Toledo, Ohio: Road building **203**
Tomato hornworm **515**
Tombigbee River, Ala. 370, 373
Tomebamba, Río, Ecuador **282–283**
Tonga Islands, South Pacific:
"Coronations a World Apart." By Frederick G. Vosburgh. Mar., p. 299; *see* outline, *below*
"The Friendly Isles of Tonga." By Luis Marden. Mar., pp. 345–367; *see* outline, *below*
"South Seas' Tonga Hails a King." By Melville Bell Grosvenor. Mar., pp. 322–343
Agriculture 327, 328, 347, 358; Coconuts 327, **346,** 347
British ties 299, 328, 350
Capital *see* Nuku'alofa
Crafts 329 *see also* Tapa
Dancing **322–323, 326–327, 334–335,** 336, 342
Date Line zone 357–358
Dress **325, 329,** 334, 337
Education 336, 346, 347
Exports 328, 347
Fishing 328, **360;** Octopus 353, **359**
Flag **299, 326, 367**
Food **334,** 342, 347, 359, **361**
Government 328, 349–350
Highest point **356**
History 299, 337, 346, 349–350, 351, 360–361, 364
Houses 346
Hurricane (1961) 327
Islands, number of 328
King *see* Taufa'ahau Tupou IV
Land grants 347, 351
Language 325, 329
Map 328
Missionaries 325, 337, 348–349
Money 342
Music 346, 348, **351**
National income 342, 347
Parliament 350, 357
Population 329, 347, 350; Density 347, 350; Youth 329, 347
Royal family **325, 330,** 343
Royal Palace **326, 330–331,** 340, **349;** Tombs **349**
Sports: Rugby **340–341,** 343; Surfing **343**
Stamps **342, 356**
State church 337
Stories 353–354, 356, 359, 363
Taboos and omens 339
Transportation 346, **347, 349**
Volcanoes **356–357,** 358 *see also* Volcanic islands
Tongatapu Island, Tonga 325, 326, 327, 329, **344–345, 348–349;** Fisherman **360;** Map 328
Tooahimpah, Frank 129, 132
"Tool-using bird: The Egyptian Vulture." By Baroness Jane van Lawick-Goodall. May, pp. 631–641
Topol'čianky Game Preserve, Czechoslovakia 173–174
Tornio River, Finland **616–617**
Tortillas **886**
Tortola Island, British Virgin Islands **66–67,** 71, 72; Map 72
Toucan **295A**
Toumliline, Morocco: Salt mine near **868**
Townsend, Cliff 244, 256–257
Townsend, E. E. 107
"Tracking Danger With the Ice Patrol." By William S. Ellis. June, pp. 780–793
Tramways, aerial (proposed): North Cascades 644, 660
Transfer Day: Virgin Islands 67, celebrations **68, 69,** 92, **98–101**
Trapper Lake, Wash. 656, cover ill.
"Trek by Mule Among Moroco's Berbers." By Victor Englebert. June, pp. 850–875
Treweek, Harry 674
"Triangle Trade" 84–85
Trippe, Juan T.: "National Geographic Society Honors Air Pioneer Juan Trippe." Apr., pp. 584–586
Trojan War 13, 15
Trolley cars: Kennebunkport 804
Trowbridge, Alexander B. **220**
Troy (ancient city), Asia Minor 13, 15
Trunk Bay, St. John 74, **80–81**
Tu'ipelehake, Prince (Tonga) **325,** 340
Tuita Kaho Movailahi 354, 356
Tu'itātui, King (Tonga) 330, 334
Tukuna Indians 295A, **295A**
Tulip tree **498, 501;** Flower **499**
Tulips: Netherlands 533, 537, 561, **562–563;** Farming **537, 563;** History 563–564
Tungī, Crown Prince *see* Taufa'ahau Tupou IV
Turandot (Puccini): Cast **382–383,** 383
Turkey: "In the Footsteps of Alexander the Great." By Helen and Frank Schreider. Jan., pp. 1–65
Agriculture 15
Armenian fortress **23**
Cone dwellings **20–21**
Dress, wedding **17**
Irrigation 15
Opium farms 17, **17**
Plains, aerial view **22–23**
Tombs, cliff 15
Wrestling 15, **18–19**
Turkomans 30, **48–49**
Turku, Finland 591, 619, 622; Farms near **604–605**
Turku Archipelago, Finland-U.S.S.R. **588–589**
Turner, Francis C. 198
Turošik, Juraj 179
Twedt, Elmer 733, **733,** 734
Twelve Apostles wine cellar, Vienna **758–759**
"Two Faces of the Atlantic." June, pp. 794–797
Tyre, Lebanon 18–19, **27;** Battle (332 B.C.) 19, **26;** Population 27

U

Udall, Stewart L. **93, 112**
Udall, Mrs. Stewart L. **112**
'Uiha, Tonga: Village green **364**
Ullapool, Scotland **426,** 433
Ultraviolet lamp 439, 440, 441
Uncle Tom's Cabin (Stowe) 812
U.S.S.R.: Afghan border 41; Finnish relations 587, 590, 593, 595, 597, 598, 601, 607, 610–611; Tourist agency 41, 43; World War II 169, 188; *see also* Uzbek S.S.R.
Union Pacific Railroad **214**
United States: Aid to Monta-

gnards 467, 485; Gold 668, 670, 671, 672, 673; "New Map Charts an Expanding Nation." Feb., pp. 220–221; "Our Growing Interstate Highway System." By Robert Paul Jordan. Feb., pp. 195–219; *see also* Big Bend; Maine; Maryland; Mobile; Nevada; North Cascades
U. S. Agency for International Development (AID) 485
U. S. Air Force: F-100's **23;** Turkey 18, 22
U. S. Army: Camels, use of 122
U. S. Army Special Forces *see* Special Forces
U. S. Census Bureau: Director **220**
U. S. Coast Guard: "Tracking Danger With the Ice Patrol." By William S. Ellis. June, pp. 780–793
Aircraft: Lockheed Hercules **781, 782,** 783, 789, 791, 792
Headquarters 783, 789–790, **791**
Oceanographic vessel (*Evergreen*) **782,** 783, **786–787,** 787, **788, 789,** 791–792, 793
U. S. Department of Commerce: Secretary **220**
U. S. Department of Transportation 198, 200, 202, 207; Secretary 208
U. S. Embassy, Saigon 443, 484
U. S. Forest Service 650, 651, 656, 661, 662
U. S. Geological Survey 668, 670–671, 672, 674
U. S. Navy 373, 382; Commander of the South Atlantic Force **93;** Shark studies 231, 245; *see also* Mobile Bay, Battle of
U. S. 1 (highway) **200–201**
U. S. Post Office: Mexico 124
University of Amsterdam 550
University of Miami 231; Shark studies **226–227,** 229
University of South Alabama 384-385, **385**
University of Utrecht **553**
University of Washington: Climbing workshop **656**
Urania (training ketch) **565**
Uranium ore: Czechoslovakia 185
Urjala, Finland: Glass factory **618**
Ursula, St.: Legend of 83
Ushpa, Grandfather 296
Ushpa, Rosario **293,** 296
Ushpa, Rosena 296
Uspenski Orthodox Cathedral, Helsinki **592**
Utrecht, Netherlands **553**
Utsjoki, Finland 627
Uzbek S.S.R. 41, 43, 44 *see also* Samarkand

V

V.I. Lenin Works (Škoda) 188
Vaasa, Finland 608, 622
Vacek, Vladimír 188
Vacuums: Seed collecting **720, 722–723**
Váh River, Czechoslovakia 170
Valley of the Kings, Scotland **414,** 418
Vanishing Peoples of the Earth (NGS) 844, 846–847, **847**
Vecchies, John **677**
Ve'ehala (Tongan) 346, 348, **351,** 353
Velasco Ibarra, Dr. José María 279, 293, 295
Venlo, Netherlands: Carnival **568–569**
Verrazano-Narrows Bridge, New York 214, **218–219**
Vetterle & Reinelt: Begonias 734
Victoria regia lily **295A**
"Vienna, City of Song." By Peter T. White. June, pp. 739–779
Architecture 743, 766, 775
Arts and crafts 743, 774; Crystal **751;** Petit point embroidery **754–755**
City planning 755, 759, 760, 768
Coffeehouses 742; Outdoor **752–753**
Customs **742,** 761, 769, 777–778
Districts 754, 755, 757
Economy 748–749
Education 754, 759
Festivals 774–775
Foods 754, 758, 761, 768, 775, 777
History 739, 743, 744, 766; World War II 739, 742, 744, 751, 754, 768
Housing 754, 755, **756–757,** 760, **768–769**
Industry 754, 757, 760–761
Inner City 739, 742–743, 754–755, **756–757,** 757
Map 750
Mint, federal 778–779
Museums 739, 761, 764
Music and dance **740–741,** 749, 751, **752,** 753, **753, 760–761,** 761, **762–763, 765,** 767, 768
Palaces *see* Augarten; Hofburg; Schönbrunn
Parks **742, 752–753,** 765, 766, **766–767, 774–775**
Population 742, 744, 747, 754
Recreation 749, 759–760; Amusement park **774;** Boating **768–769, 775, 778–779**
Religion 742, **753,** 774–775
Suburbs 754–755, 760, **768–769**
Traffic **748–749,** 755, 759
Transportation 749, 766–767, 778
Wine: Cellars **758–759, 777;** Gardens **743, 758,** 767–769; Vineyards 769, 774, **776**
Vienna Choirboys **765,** 775
Vienna Classical Schrammel Quartet **762–763**
Vienna Philharmonic Orchestra 751
Vienna State Opera House **740–741,** 751, 761; Performers **760–761**
Vienna Woods, Vienna 749, 766–767, **778–779**
Viet Cong: "Viet Nam's Montagnards." By Howard Sochurek. Apr., pp. 443–487
Air strikes against 450, 469
Attacks and raids by 448, 449, 450, 455, 456, 457–458, 460, 467, 468, 469, 470
Defectors **444–445, 471,** 479
Forced labor 449, 464, 468, 470, 479–480
Jungle concealments 443, 445
Patrolling for 450, **462–463,** 464
Propaganda 469, 470, 480
Supplies 448, 456, 464
Supporters 469, 470, 479, 480
see also North Viet Nam
Tactics and controls 464, 469
Viet Nam: "Viet Nam's Montagnards." By Howard Sochurek. Apr., pp. 443–487
Christianity 447, 482
Highlands 443, 445
Japanese occupation 444
Monsoon rains 450, 460, 480
Wars 475, 477
see also South Viet Nam
Villiers, Alan 621; "The Netherlands: Nation at War With the Sea." Apr., pp. 530–571
Villiers, Mrs. Alan (Nancie) 566
Vinalhaven, Maine 824–825, 829; Memorial Hall **828–829**
Vineyards: Vienna 769, 774, **776**
Violets, Yellow **494–495**
Viollet-le-Duc, Eugène-Emmanuel 692, 696; Image **682**
Virgin Islands: "Our Virgin Islands, 50 Years Under the Flag." By Carleton Mitchell. Jan., pp. 67–103
Agriculture 78
Amphibian planes **82–83,** 92
Capital *see* Charlotte Amalie
Climate 66, 67, 72
Governor 72, 86, **93,** 95, 97
History 66, 68, 69, 73, 74, 83, 84–85, 89, 90, 95; Danish rule 71, 82, 85, 94–95, 96
Holidays 67; Transfer Day celebration **68–69,** 92, **98–101**
Land value rise 85–86
Pirates 69, 76, 94–95, 99
Rain forests 76, 83
Schools **74**
Size and number of islands 72
Slaves 71, 74, 83, 84, 89
Tourism 67, 86; Customs 96
Water shortage 78, 88
Virgin Islands National Park, St. John 69–70; Campground **81**
Virginia: Highways **200–201**
Virgins' Gangway (channel) 69
Visser-Wittmann, Thea 760
Visual aids *see* Filmstrips, NGS

Viteri, Oswaldo, and family **271**
Vltava River, Czechoslovakia 151, 158, **160–161,** 164
Volcanic islands: Tonga 328, **356,** 358, 364–365, **366,** 367, **367**
Volcanoes: Cascade Range 649; Parasitic cone **356,** 358; *see also* Andes; Volcanic islands
Volendam, Netherlands 561, 564
Volkerak Dam, Netherlands 542; Map 536
Voltaire 711, 713
Vosburgh, Frederick G.: Introductions to articles: "Coronations a World Apart." Mar., p. 299; "In the Footsteps of Alexander the Great." Jan., p. 1
Vroom, Hendrick Cornelisz 545
Vulture, Egyptian: "Tool-using Bird: The Egyptian Vulture." By Baroness Jane van Lawick-Goodall. May, pp. 631–641
Coloration 636, 639
Diet 634, 636, 639
Fighting **631,** 632, 640–641, **641**
Inheritance study, future 640, 641
Objects, reaction to: Color **634,** 636, **637,** 641; Cube-shaped **637,** 641; Egg-shaped **630–632, 634–635,** 636, 638, **638–639,** 641; Size **634–635,** 636, 639, 641
Pecking order 631, 638, 639, 640
Range 636; Map 633
Stone-throwing: Response 634, 636, frustration 639, 640, time spent 632, 635, 638, 639, 641; Stones used **630–631, 635, 636–639,** distance carried 635, 636, 638, 640, weight and size 636, 638–639
Vultures **631,** 632, 636, 638, **641**

W

W. Atlee Burpee Company 723, 724, 732, 734; Zinnias **736–737**
Wagon train **120–121**
Walker, Rev. Alexander 418
Walker, Edward **677**
Walker, Ion 388, 392
Waller, John 734
Waller, Richard 142, 144
Waller Flowerseed Company 734
Walnut Hill Elementary School, Fairfax County, Va.: Students **134–135**
Ward, Byron **656**
Warnaar, Paul 560
Warren, Earl 584, **584,** 586
Wärtsilä shipyards, Turku 591
Washington *see* North Cascades
Washington, D. C. (NGS filmstrip) 134, 136, 137, **137**
Washington County, Maine 838–839, 840
Wasps 503, 515, 522; Braconid cocoons **515;** *Polistes* 505, 508–509, nest **509,** queen **509**
Water lilies: Amazon **295A;** Mexcaltitán 882, **883**
Wauer, Roland 108, 122
Weathervanes: Squarerigger **820**
Weddle, Charles 734
Weddle Plant Research Laboratories 734
Weems, Nancy **735**
Wegener, Alfred 797
Weigel, Hans 739, 742
Weightlessness experiments, underwater **94–95,** 101–102
Wells, Bill 657
Wenceslas, St.: Statue of **157**
Wenceslas Square, Prague 151, **156–157,** 158, **158–159**
Wertheimsteinpark, Vienna: Garden for the Blind **766–767**
West Greenland Current 785, 786
West Quoddy Head Light, Maine 842
Westland district, Netherlands: Farming **559**
Westminster Abbey: Poets' Corner 805
Wetmore, Reagh 829
Whale sharks **233–234, 235–237,** 242–243
Whales 242, 254, 360
Whim (mansion), St. Croix **88–89**
White, Alvin 102
White, Maj. Edward: Space walk **844–845**
White, Norby 743, 766, 777
White, Peter T.: "Vienna, City of Song." June, pp. 739–779
Whitetip sharks **225, 233,** 238, 239, 255, **256–257,** cover ill.
Whymper, Edward 270
Wichterle, Dr. Otto **186**
Wicklund, Robert 142, 144
Wiggins, Brian **389**
Wijnholt, R. G. 546
Wild cress (plant) **511**
Wildebeests: Africa **848**
Wilderness Act 654
Wilderness areas, U.S. 650, 651, 654
Wildlife: "Nature's Year in Pleasant Valley." By Paul A. Zahl. Apr., pp. 488–525; *see also* Big Bend, *outlined*
Will Rogers Turnpike, Okla.: Restaurant bridge **198–199**
Willauer, Peter 830
Williams, Stan 440, 442
Wills, Maj. J. L. 422
Wilson, Barry 243
Wilson, Valentine 796
Windmills: Netherlands 533, **537,** 539
Wine cellars: Vienna **758–759, 777**
Wine festival: Czechoslovakia **182–183**
Wine gardens: Vienna **743, 758,** 767–769, 777
Winter, Arch **378**
Winter Games: Finland **620, 621**
Winter War (Finland-Russia) 587, 602, 607, 611, 616, 623
Wisby, Dr. Warren J. 229
Wiscasset, Maine 819, **836–837;** Page House **816**
Witch doctor: Ecuador 290–291
Wobbegong shark **244**
Wolper, David L. 295A
Wolper Productions, Inc. 579A
Wood, F. G. 245
Woodbridge, Va. **200–201**
Wool production: Scotland **404–405**
Woolfitt, Adam, photographer: "The Netherlands: Nation at War With the Sea." Apr., pp. 530–571
World Atlas Map Series: "Two Faces of the Atlantic." June, pp. 794–797
"The World in Geographic Filmstrips." By Melvin M. Payne. Jan., pp. 134–137
World War I: Austria 739, 744
World War II: Aviation 586; Czechoslovakia 169, 183, 185, 188; Egypt 20; Finland 587, 590, 591, 607, 610, 611, 623; Mobile Reserve Fleet 372–373, 392; Netherlands 531, 550, 556, 571; Paris islands 710, 717; Vienna 739, 742, 744, 751, 754, 768
Wrestling: Turkey 15, **18–19**
Wright, Owen 472, 479
Wright, Robert **821**
Wycliffe Bible Translators 447, 459
Wyeth, Andrew 822–823, **824;** Painting by **824–825**
Wyeth, N. C. 823
Wyoming: Highways **214**

Y

Y Bang Bu Prek 480–481, **484**
Y Bang Ong **444–445**
Y Bang Panting **471,** 473, 479–480
Y Bang Rlik 480
Y Bham 477, 485
Y Blo 485
Y Krah Dac Chat **484**
Y Krang Panting **484**
Y Krang Rong 479
Y Long Rnok 482
Yacht Haven, Charlotte Amalie 102–103
Yang (evil spirits) 453, 457
Yang Coi (rice spirit): Sacrifices to 481–482, 484, **485**
Yang Griang (evil spirit) 452
Yankee Clipper (airplane) 586
York Beach, Maine 801
York Village, Maine 803
yurts (nomad dwellings) 30
Yyteri Beach, near Pori, Finland: Bather **616**

Z

Zadkine, Ossip: Sculpture by **554**
Zagora, Morocco 875

UMI

Zagros Mountains, Iran 32, **36–37**
Zahl, Eda Kristin **493,** 503, **504**
Zahl, Dr. Paul A. **442. 502, 505, 509, 521;** Farm **488–490;** "Nature's Year in Pleasant Valley." Apr., pp. 488–525; "Scorpions: Living Fossils of the Sands." Mar., pp. 436–442
Zahl, Mrs. Paul A. (Eda) **493, 501, 506, 513, 521, 524**
Zahl, Paul, Jr. 496–497, 503
Zambezi sharks 248
Zeeland (province), Netherlands 537, 539, 543
Zeller, Fred 714–715
Zinnias 724, 725, **726,** 732, 733, **736, 737**
Znojmo, Czechoslovakia: Festival **182–183**
Zubair, Ghulam 37, 38
Zuider Zee, Netherlands 533, 561, 564; Maps 539
Zvolanek, William **733**
Zwerver, Went 556